

```
HIGHLIGHT set on as ''
? b ftxtcor, nftxtcor
>>>      77 does not exist
>>>1 of the specified files is not available
      05jan04 15:13:08 User242899 Session D296.2
      $0.00    0.072 DialUnits File410
      $0.00  Estimated cost File410
      $0.46  TELNET
      $0.46  Estimated cost this search
      $0.46  Estimated total session cost  0.229 DialUnits
```

```
SYSTEM:OS - DIALOG OneSearch
  File 15:ABI/Inform(R) 1971-2004/Jan 03
    (c) 2004 ProQuest Info&Learning
*File 15: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
  File 9:Business & Industry(R) Jul/1994-2003/Dec 29
    (c) 2003 Resp. DB Svcs.
  File 810:Business Wire 1986-1999/Feb 28
    (c) 1999 Business Wire
  File 275:Gale Group Computer DB(TM) 1983-2004/Jan 05
    (c) 2004 The Gale Group
  File 476:Financial Times Fulltext 1982-2004/Jan 05
    (c) 2004 Financial Times Ltd
  File 610:Business Wire 1999-2004/Jan 05
    (c) 2004 Business Wire.
*File 610: File 610 now contains data from 3/99 forward.
Archive data (1986-2/99) is available in File 810.
  File 624:McGraw-Hill Publications 1985-2004/Jan 05
    (c) 2004 McGraw-Hill Co. Inc
*File 624: Homeland Security & Defense and 9 Platt energy journals added
Please see HELP NEWS624 for more
  File 636:Gale Group Newsletter DB(TM) 1987-2004/Jan 05
    (c) 2004 The Gale Group
  File 621:Gale Group New Prod.Annou.(R) 1985-2004/Jan 05
    (c) 2004 The Gale Group
  File 613:PR Newswire 1999-2004/Jan 05
    (c) 2004 PR Newswire Association Inc
*File 613: File 613 now contains data from 5/99 forward.
Archive data (1987-4/99) is available in File 813.
  File 813:PR Newswire 1987-1999/Apr 30
    (c) 1999 PR Newswire Association Inc
  File 16:Gale Group PROMT(R) 1990-2004/Jan 05
    (c) 2004 The Gale Group
*File 16: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
  File 160:Gale Group PROMT(R) 1972-1989
    (c) 1999 The Gale Group
  File 634:San Jose Mercury Jun 1985-2003/Dec 31
    (c) 2004 San Jose Mercury News
  File 148:Gale Group Trade & Industry DB 1976-2004/Jan 05
    (c) 2004 The Gale Group
*File 148: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
  File 20:Dialog Global Reporter 1997-2004/Jan 05
    (c) 2004 The Dialog Corp.
  File 35:Dissertation Abs Online 1861-2003/Nov
```

(c) 2003 ProQuest Info&Learning
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
*File 583: This file is no longer updating as of 12-13-2002.
File 65:Inside Conferences 1993-2004/Jan W1
(c) 2004 BLDSC all rts. reserv.
File 2:INSPEC 1969-2003/Dec W2
(c) 2003 Institution of Electrical Engineers
*File 2: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.
File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
(c) 2003 EBSCO Pub.
File 474:New York Times Abs 1969-2004/Jan 03
(c) 2004 The New York Times
File 475:Wall Street Journal Abs 1973-2004/Jan 02
(c) 2004 The New York Times
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Nov
(c) 2003 The HW Wilson Co.
File 348:EUROPEAN PATENTS 1978-2003/Dec W02
(c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20031225,UT=20031218
(c) 2003 WIPO/Univentio
File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)
(c) 2003 JPO & JAPIO

*File 347: JAPIO data problems with year 2000 records are now fixed.
Alerts have been run. See HELP NEWS 347 for details.

Set	Items	Description
---	---	-----
? s	(price or offer)	(s) (expir?) (s) (chang?) (s) (price)
Processing		
Processed	10 of 27 files	...
Processing		
<-----User Break----->		
u!		
? s	(price or offer)	(s) (expir?) (s) (chang?) (s) (regular)
Processing		
Processed	10 of 27 files	...
Processing		
Processed	20 of 27 files	...
Processing		
Completed	processing all files	
7937149	PRICE	
6797048	OFFER	
889393	EXPIR?	
14481049	CHANG?	
1683720	REGULAR	
S1	180	(PRICE OR OFFER) (S) (EXPIR?) (S) (CHANG?) (S) (REGULAR)
? rd	s1	
>>>Duplicate detection is not supported for File 348.		
>>>Duplicate detection is not supported for File 349.		
>>>Duplicate detection is not supported for File 347.		
>>>Records from unsupported files will be retained in the RD set.		
...examined 50 records (50)		
...examined 50 records (100)		
...examined 50 records (150)		

```
...completed examining records
      S2      145  RD S1 (unique items)
? s s2 and py<2000
Processed 10 of 27 files ...
Processing
Processing
Processing
Processed 20 of 27 files ...
Processing
Completed processing all files
      145  S2
      63328394  PY<2000
      S3      37  S2 AND PY<2000
? t s3/7,k/1

3/7,K/1      (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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```

00736697 93-85918
USE FORMAT 9 FOR FULL TEXT
Whatever happened to the triple witching hour?

ABSTRACT: Abnormal stock **price** movements frequently accompany the triple witching hour - the final hour of trading on days when index futures, index options, and **regular** stock options **expire** simultaneously. On July 19, 1987, the Chicago Mercantile Exchange (CME), the New York Futures Exchange, and the New York Stock Exchange (NYSE) **changed** the **expiration** day of the S&P and NYSE composite index options and index futures **expiring** in March cycle months in an effort to eliminate or reduce the impact of the triple witching hour. Since June 1987, market activity on derivative contract **expiration** days has not been abnormal when compared with trading on non-**expiration** days. However, as there had been no evidence of significant **price** distortions prior to the **change**, it is difficult to conclude that the CME **changes** caused a decrease in **price** distortions. Even so, the volatility of returns remains high during **expiration** periods, most likely because of the unwinding of intermarket arbitrage positions.

Hancock, G D
Financial Analysts Journal v49n3 PP: 66-72 May/Jun 1993 CODEN: FIAJA4
ISSN: 0015-198X JRNL CODE: FIA
DOC TYPE: Journal article LANGUAGE: English LENGTH: 7 Pages
WORD COUNT: 4230

ABSTRACT: Abnormal stock **price** movements frequently accompany the triple witching hour - the final hour of trading on days when index futures, index options, and **regular** stock options **expire** simultaneously. On July 19, 1987, the Chicago Mercantile Exchange (CME), the New York Futures Exchange, and the New York Stock Exchange (NYSE) **changed** the **expiration** day of the S&P and NYSE composite index options and index futures **expiring** in March cycle months in an effort to eliminate or reduce the impact of the triple witching hour. Since June 1987, market activity on derivative contract **expiration** days has not been abnormal when compared with trading on non-**expiration** days. However, as there had been no evidence of significant **price** distortions prior to the **change**, it is difficult to conclude that

the CME **changes** caused a decrease in **price** distortions. Even so, the volatility of returns remains high during **expiration** periods, most likely because of the unwinding of intermarket arbitrage positions.

...
...TEXT: futures market by increasing the variance of discrepancies between stock and futures prices.

Abnormal stock **price** movements frequently accompany the triple witching hour--the final hour of trading on days when index futures, index options and **regular** stock options **expire** simultaneously. In an effort to eliminate or reduce the impact of the triple witching hour...

... Exchange (CME), the New York Futures Exchange (NYFE) and the New York Stock Exchange (NYSE) **changed** the **expiration** day of the S&P and NYSE composite index options and index figures **expiring** in March cycle months. (2)

Prior to June 18, 1987, the S&P and NYSE...
? t s3/7,k/2

3/7,K/2 (Item 1 from file: 9)
DIALOG(R) File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

2281096 Supplier Number: 02281096 (THIS IS THE FULLTEXT)
Rodale Titles Aggressively Promote Continuous Service
(Rodale Press promotes continuous subscriber services for its Organic
Gardening and Prevention magazines)
CM/Circulation Management, p 12+
October 1998
WORD COUNT: 845

TEXT:

While most U.S. magazines testing or implementing continuous service are still taking a very low-key, low-visibility approach to the concept, two Rodale Press publications have decided to actively promote the service to its readers. Rather than simply adding a line mentioning the service as part of the renewal offer, Organic Gardening and Prevention are touting the benefits of the publisher's "Preferred Subscriber Service" in both editorial pages and house ads.

Circulation executives at both titles say that they hope that the straightforward approach pays off in lower costs, fewer customer service problems, and greater acceptance of continuous service as an industry standard.

After testing continuous service in a new business direct mail campaign in October '97 and in mailings to long-term subscribers since 1996, Prevention circulation director Jim Woods decided to promote the ABC-approved program to subscribers through a full-page house ad. He' also approached the magazine's editor, Anne Alexander, with the idea of endorsing the concept in the "Letter from the Editor" page in the September issue. (Newsstand copies had an alternate letter and house ad.)

The push to get subscribers on continuous service is part of an overall division effort to reduce paper and postage costs, but is also intended to reduce one of Prevention's top five customer service complaints: receiving too many renewal notices in the mail.

Alexander says she was willing to run the column on CS because she believes that the service will truly benefit readers. "I felt that it was something that our readers had been asking for and would appreciate," she notes.

The letter emphasized the subscriber's ability to cancel on receipt of the invoice, and included an 800 number that subscribers may call to request the service. It also directed readers to the house ad, which was positioned near the back of the magazine and promoted the time- and money-saving benefits of signing up. In addition, the ad spelled out the general terms of the **offer**: "guaranteed savings" off the cover **price** (no specific pricing is mentioned) and a free gift each year, along with the cancel option. Readers may call in to sign up for the service at any point during their subscription without receiving an invoice until their **regular expire** date. The invoice will carry the same **price** and terms that they would normally have received. (Renewal prices generally fall between \$17.97 and \$19.97. Rodale has levels of offers, depending on how many years a customer has been a subscriber and original source of business.) Signing up for continuous service is treated as a "status **change**" by the fulfillment bureau and by ABC.

Organic Gardening was actually the first Rodale title to take a promotional approach to CS. After OG tested the service on readers who've renewed more than three times, consumer marketing director Dennis Bednarski decided to run an ad promoting CS to all OG subscribers in its May/June 1998 issue. OG ran the ad again in the July/August issue, and the program was also explained in editor Nancy Beaubaire's column.

Because CS customers who call the 800 number can be billed at the end of their current term, payment results from the September house ad will be available more quickly than for past renewal offers, in which continuous service did not go into effect until the following year. To avoid confusion and complaints, readers of both titles are sent a non-sweeps link letter before the invoice is mailed. However, because of fulfillment factors, Woods says he can't yet test the impact of using different link letter approaches.

Both circulators report that including a CS offer has not affected renewal response or pay-up in previous tests. However, because the 800 number used in the opt-in approach is a customer service function, normal promotion reporting and tracking procedures cannot be used. "We literally have to look at customer service records to see how many people respond to this," points out Woods, who says that he hopes to receive several hundred calls per month from readers wishing to participate in the service.

The house ad will be run as often as space allows in both titles, and Woods says that he also plans to insert the ad, along with reprints of Alexander's letter, in premium shipments to new subscribers.

Both circulators stress the importance of trying to accustom not only Rodale's readers, but the whole magazine-reading U.S. public, to continuous service. Woods says that he believes American consumers are ready for CS programs. And both circulators agree that special interest publications with strong subscriber loyalty are particularly likely to experience success with the concept.

"Our long-term renewal rates are already higher than 70 percent. With that

kind of loyalty to the product, this service can be announced and be well-received," says Woods.

Both circulators also emphasize their conviction that all magazines using continuous service must take an honest and fully informative approach to introducing the concept to subscribers, in order to avoid consumer complaints and possible government regulation.

"If we do this right, I think that it can work in a big way," sums up Woods.

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(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...benefits of signing up. In addition, the ad spelled out the general terms of the **offer**: "guaranteed savings" off the **cover price** (no specific pricing is mentioned) and a free gift each year, along with the cancel...

...for the service at any point during their subscription without receiving an invoice until their **regular expire** date. The invoice will carry the same **price** and terms that they would normally have received. (Renewal prices generally fall between \$17.97...)

...and original source of business.) Signing up for continuous service is treated as a "status **change**" by the fulfillment bureau and by ABC.

Organic Gardening was actually the first Rodale title...
? t s3/7,k/3

3/7,K/3 (Item 1 from file: 624)
DIALOG(R) File 624:McGraw-Hill Publications
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0307447
COMEX SEEKS TO CHANGE THE SETTLEMENT OF ITS FIVE-DAY GOLD OPTIONS
Securities Week May 27, 1991; Pg 9
Journal Code: SW ISSN: 0149-3582
Word Count: 298

BYLINE:
TD

TEXT:

The Commodity Exchange is seeking CFTC approval to **change** the way the exchange's five-day gold options are settled. The contract is currently cash-settled based on a volume-weighted average of prices in the underlying futures contract during the last 15 minutes of trading on the option's **expiration** day. The exchange is proposing to base the cash-settlement value of the five-day options on the **regular** gold futures settlement **price**.

The reason for requesting the change is that during volatile periods there can be "significant deviations" in the volume-weighted price from the

regular settlement price, the exchange said.

To prove its point, Comex analyzed its gold pricing data from January 1990 through April 1991, when gold prices were slightly to moderately volatile for a majority of the trading days.

During that period, the volume-weighted price differed from the regular gold futures settlement price about 75% of the time, according to the exchange. More than 25% of the settlement prices were off by at least 30 cents, and on several trading days, the volume-weighted price differed from the regular settlement by as much as a \$1, the exchange said.

For purchasers, a \$1 difference means the value of an in-the-money five-day option would be \$100 lower than if the option had been settled based on the regular gold settlement price, according to the exchange.

Comex said both floor members and the trading community have expressed their concern that continued use of the volume-weighted settlement price "is likely to impede efficient pricing, increase bid/ask spreads, and reduce the effectiveness of five-day options as a hedging vehicle."

The problem "is magnified," according to Comex, because volume-weighted prices are not available until the next trading morning, "long after customers have information about the regular settlement price on which they may have based expectations of profits."

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TEXT:

The Commodity Exchange is seeking CFTC approval to **change** the way the exchange's five-day gold options are settled. The contract is currently...

...the underlying futures contract during the last 15 minutes of trading on the option's **expiration** day. The exchange is proposing to base the cash-settlement value of the five-day options on the **regular** gold futures settlement **price**.

The reason for requesting the change is that during volatile periods there can be "significant..."

1991

? t s3/7, k/4

3/7, K/4 (Item 1 from file: 636)
DIALOG(R) File 636: Gale Group Newsletter DB(TM)
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04111129 Supplier Number: 54041238 (THIS IS THE FULLTEXT)
Potomac Fever Wanes For Ex-Senators.

CongressDaily/A.M., pNA
March 8, 1999

TEXT:

WASHINGTON -- Mar-8 -- (CongressDaily) Potomac fever does not appear to hold a firm grip over the eight members of the Senate who departed, either voluntarily or involuntarily, after their terms **expired** at the end of the 105th Congress, according to a CongressDaily survey. Of the eight, three were defeated for re-election, four chose not to seek re-election and

one was elected governor last November. Former Senate Minority Whip Ford, who now answers his own phone from his personal office in Owensboro, said he is trying to adjust to life after 24 years in the Senate and three years prior to that as Kentucky governor. "Mrs. Ford's complaining she's got two sewing kits. I'm just trying to get settled in," he said, noting he has unpacked about half of the boxes he moved from his Washington residence. Ford, 74, said he prefers to live in Kentucky, where he served in the state Senate and as lieutenant governor prior to his 1971- 74 stint in the statehouse. But he said he will serve as a part- time adviser to the Washington-based law firm of Dickstein, Shapiro, Morin & Oshinsky. Of the eight departed senators, only former Sens. Dan Coats, R-Ind., and Dale Bumpers, D-Ark., have full-time commitments and are living in the Washington area. The law firm of Verner, Liipfert, Bernhard, McPherson and Hand, currently home to two former Senate majority leaders, Democrat George Mitchell and Republican Bob Dole, has hired Coats as a consultant on telecommunications, healthcare and international affairs matters. Coats, 55, also serves as the national board president for Big Brothers Big Sisters of America, an organization in which he has been active for 30 years and continues to work on development and fundraising projects. "He's very much a hands-on board president," the group's spokesman said. "I think [he is] a little different from your typical board president." Also maintaining a Washington presence, Bumpers has become director of the Center for Defense Information, a full-time position. In addition, Bumpers, 73, has an apartment in Little Rock, where he stays while in town for a regular series of lectures he delivers at the University of Arkansas and Hendrix College on public policy and government. The only Senate Democrat to lose re-election, former Sen. Carol Moseley-Braun, splits her time between her home state of Illinois and Washington, where she is a part-time consultant on school construction issues for the Education Department, an aide said. "It's kind of 50-50. It's kind of like when she has been in the Senate," the aide said. However, Moseley-Braun, 51, would leave both locales if, as expected, President Clinton nominates and the Senate confirms her to become ambassador to New Zealand. The aide said Moseley-Braun has submitted the paperwork for the position and confirmed Moseley-Braun's recent statements saying she would accept the post if it were offered to her. Meanwhile, speculation has continued about the political futures of former Sens. Alfonse D'Amato of New York and Lauch Faircloth of North Carolina, the two Republican senators defeated for re-election last year. D'Amato, 61, has not ruled out a 2000 run for the seat of retiring Democratic Sen. Daniel Patrick Moynihan, although recent polls show him trailing another prospective candidate, New York City Mayor Rudolph Giuliani, in a GOP primary matchup. D'Amato has opened Park Strategies, a consulting business in New York City. In addition to delivering speeches, D'Amato is a contributor to Fox News. And the former three-term senator also has received a short-term judicial post to mediate a federal lawsuit brought against German and Austrian banks by Holocaust survivors. Meanwhile, some North Carolina Republicans have been trying to persuade Faircloth to run for governor in 2000. But the party has other potential candidates in former Charlotte Mayor Richard Vinroot, state House Minority Leader Leo Daughtry and state Rep. Chuck Neely. A state GOP spokesman said Faircloth continues to cultivate his strong local Republican network, but has not shown any interest in another race. "He's more concerned about the **price** of hogs than politics," the spokesman said. An employee of Faircloth Farms said Faircloth, 71, could not be reached for comment. But the employee said the former senator has returned to the hog farm and is enjoying his freedom outside the Senate. Of the eight senators to leave Congress at the end of last year, only former GOP Sen. Dirk

Kemphorne, 47, now holds elective public office, as governor of Idaho. As governor, Kemphorne has enjoyed the speed at which he can push **change** in the state, particularly on the issue of child immunizations, compared to being a senator, a spokesman said. "I think he adjusted well to the transition. He had less than two months to form a government, write a budget and review state government from top to bottom," the spokesman said of Kemphorne, who is back in Boise, where he served as mayor for seven years prior to his election to the Senate in 1992. DID NOT SEEK RE-ELECTION (4) Democrats (3) Dale Bumpers, Arkansas Director, Center for Defense Information, Washington, D.C.; lecturing on government and public policy every other week at the University of Arkansas at Fayetteville and Hendrix College in Arkansas; 1779 Mass. Ave., N.W., Washington, D.C. 20036, (202) 332-0600. Wendell Ford, Kentucky Working to open the Wendell H. Ford Government Education Center at the Owensboro Area Museum of Science and History; lecturing at the University of Kentucky; part-time adviser to Washington-based Dickstein, Shapiro, Morin & Oshinsky; P.O. Box 1954, Owensboro, Ky. 42302-1954, (502) 683-5472. John Glenn, Ohio Spent time traveling the country with his shuttle crewmates after returning from space in November; opening the John Glenn Institute for Public Service and Public Policy at Ohio State University; working on causes he supports and in involving youth in public service; 100 Bricker Hall, 190 N. Oval Mall, Columbus, Ohio 43210, (614) 292-2458. Republicans (1) Dan Coats, Indiana Consulting on telecommunications, health care and international affairs for Verner, Liipfert, Bernhard, McPherson and Hand; serving as national board president for Big Brothers Big Sisters of America; 901 15th St. N.W., Washington D.C. 20005, (202) 371- 6000. SOUGHT HIGHER OFFICE (1) Dirk Kemphorne, Idaho Governor, state of Idaho; State Capitol, Boise, Idaho 83720, (208) 334-2100. DEFEATED FOR RE-ELECTION (3) Democrats (1) Carol Moseley-Braun, Illinois The Education Department hired Moseley-Braun as a part-time adviser on school construction, an issue she pushed while in the Senate. Last month Moseley-Braun said that if offered, she would accept the nomination to become U.S. ambassador to New Zealand, but the Clinton administration has yet to submit the nomination; 819 S. Wabash Ave., Suite 500, Chicago, Ill. 60605, (312) 986- 9898. Republicans (2) Alfonse D'Amato, New York Opening a consulting business; doing public speeches and television commentary for Fox News; 101 Park Ave. Suite 2507, New York, N.Y. 10178, (212) 808-7154. Lauch Faircloth, North Carolina The one-term senator has returned home to his Faircloth Farms in Clinton, N.C.; P.O. Box 496, Clinton, N.C. 28329, (910) 592-3593.

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(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...the eight members of the Senate who departed, either voluntarily or involuntarily, after their terms **expired** at the end of the 105th Congress, according to a CongressDaily survey. Of the eight...

...73, has an apartment in Little Rock, where he stays while in town for a **regular** series of lectures he delivers at the University of Arkansas and Hendrix College on public...

...but has not shown any interest in another race. "He's more concerned about the **price** of hogs than politics," the spokesman said. An

employee of Faircloth Farms said Faircloth, 71...

...governor of Idaho. As governor, Kempthorne has enjoyed the speed at which he can push **change** in the state, particularly on the issue of child immunizations, compared to being a senator...

19990308

? t s3/7,k/5

3/7,K/5 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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04071193 Supplier Number: 53564195 (THIS IS THE FULLTEXT)
TELEPHONY.

Communications Daily, v19, n8, pNA

Jan 13, 1999

TEXT:

SBC Communications Tues. launched "massive rollout" of high- speed data services using asymmetrical digital subscriber line (ADSL), targeting more than 500 central offices and 9.5 million residential and business customers by year-end. SBC said effort is largest ADSL rollout in country. Bell Atlantic is deploying 7 million ADSL-ready lines in major cities in its region by year- end. SBC CEO Edward Whitacre said that once lines are deployed, company will **offer** ADSL service only starting at \$39 per month, and combination of ADSL and Internet access for \$49 monthly. SBC launched ADSL in Cal. last year, and Pacific Bell unit will triple its presence to 255 central offices to serve 70% of customers, company said. Southwestern Bell will begin marketing ADSL in its region by April 1 and Southern New England Telephone will begin ADSL trial Jan. 21. ----- IXC Communications said it will buy Coastal Telephone of Houston in \$100 million cash-stock deal and will combine it with subsidiary Eclipse Telecom. Of **price**, \$25 million will be in shares of IXC. CEO Benjamin Scott said acquisition is part of strategy to expand services to small and midsized companies. Coastal has more than 100,000 business customers, mostly in Southwest. Deal will allow it to expand nationwide, Scott said. ----- BroadPoint and Duquesne Enterprises expanded nationally FreeWay long distance service that provides calls without charge in return for customers' listening to 15-sec. ads. Pittsburgh marketing company BroadPoint said it partnered with electric utility unit and began testing service in Pittsburgh last April, and 10,000 customers are **regular** users. Service requires access number and password, assigned after customers complete online questionnaire about lifestyles and interests. ----- Star Telecom's tentative agreement to buy Group Long Distance (GLD) **expired** with companies unable to reach final terms. Stumbling blocks weren't disclosed. GLD CEO Gerald Dunne expressed disappointment and said company will continue to seek merger and pursue actions to "maximize shareholder value." ----- Frontier deployed local phone service nationwide, doubling number of local access lines to 200,000, and offering service to 70% of U.S. businesses. Frontier said it resells local service in 32 states and D.C. and offers facilities-based, integrated local, long distance and data service in 13 major markets. ----- GST Telecom and Pacific Fiber Link (PFL) signed 2nd contract with Williams worth \$47.2 million for fiber on network being built between Sacramento and Portland, Ore. GST and PFL will split contract revenue, GST said. Williams will join companies in network construction, which will connect to GST's L.A.-Sacramento network and add to network reaching from San Diego to Seattle. ----- Tritel will launch digital wireless network in partnership

with AT&T Wireless Services that will **offer** service in Ala., Miss., and parts of Ky., Ind., Tenn. ----- Level 3 Communications will install 10-12 fiber conduits throughout its nationwide network to allow continuous network upgrades and leave room for future expansions. Company said extra conduits will be installed without affecting network quality or production schedule. Level 3 said of 10-12 conduits installed, fiber will be placed first in only one, allowing room to deploy latest technology or meet increased customer demand. ----- Metromedia Fiber Network signed agreement to lease fiber to Bell Atlantic (BA) for buildout of long distance network linking N.Y.C. and White Plains. Terms weren't announced. BA said it will install advanced electronics on fiber, such as asynchronous transfer mode and dense wavelength division multiplexing, to provide voice and data over single network. It plans to activate service on leased capacity when it receives permission to provide long distance in N.Y., expected in 2nd quarter, Metromedia said. ----- U.S. cellular and PCS carriers lost nearly 16 million customers to churn in 1998, Cahners In-Stat Group predicted in new study, using 4th-quarter projections. Study said subscriber losses exceeded additions by 150%, up from 1:1 ratio of past years. Also, rates are expected to continue rising and will reach 37% by 2002, study reported, with almost 40 million subscribers **changing** carriers every year -- 408-345-4449. ----- PageNet bought wireless messaging software provider Silverlake Communications, adding it to Advanced Wireless Integration Group. Companies said they share "vision" of providing services "far beyond" traditional paging, and already have begun developing products for remote equipment monitoring and collecting information from Internet. ----- Telscape International secured \$7 million financing for equipment purchases from NTFC Financial to continue developing its network in U.S., Mexico and rest of Latin America, it said. Company also said it received \$5 million credit line arranged by Preferred Capital Markets to be used for expansion and acquisition. ----- Tex. PUC put informal alternative process for resolution of competitive disputes on back burner because parties are showing marked preference for formal cases to address disputes. PUC Project 18000, informally called "rope 'em and throw 'em" process, was created in Sept. 1997 to give squabbling telecom competitors way to avoid long, cumbersome, expensive complaint cases, arbitrations or rulemakings by working informally with PUC staff. Process settled 11 competitive disputes, PUC said, but no one has used it in months. Project 18000 process will remain available, however. ----- Wyo. PSC opens hearings Jan. 14 on U S West petition to have intraLATA toll service rates deregulated as fully competitive. U S West petition contends that implementation of toll dialing parity in Jan. 1998 cleared way for full competition and that 900% growth in number of state-authorized interexchange providers since 1995 to more than 250 today from 39, demonstrates Wyo. interexchange marketplace is attractive to competitors. ----- Groups characterizing themselves as grass-roots consumer- interest organizations launched TV ad campaigns in Ill. and Ohio Tues., claiming proposed SBC-Ameritech merger won't promote local phone competition, but will thwart competitive entry and limit consumer choices. Groups, Ill. Partnership for Fair Telecommunications Policy and Ohioans for Phone Policy Reform, said they hoped antimerger ads would build merger opposition and influence state commission deliberations on merger approval. Ameritech officials Tues. in Ill. and in testimony in Ohio PUC merger hearings last week denounced AT&T and MCI WorldCom for creating antimerger front groups disguised as consumer organizations and bankrolling what they termed their "deceptive" ad campaigns. MCI WorldCom took exception to Ameritech claims, saying it expresses its merger opposition directly, doesn't work through any front groups, hasn't funded ad campaigns in question. Ameritech in Ill. also released new poll showing

only 8% of respondents opposed merger while 29% approved it. ----- New Cal. Gov. Gray Davis (D) withdrew GOP predecessor Pete Wilson's executive appointments of PUC Comr. Gregory Conlon (R) to serve new term and of Elena Schmid to be dir. of PUC Office of Ratepayer Advocacy (ORA). As result, there now are 2 PUC vacancies, since Comr. Jessie Knight (R) didn't seek reappointment. Conlon and Knight joined PUC in 1993. Schmid returns to old supervisor's job at ORA. ----- W.Va. PSC, after 6-month investigation into status of payphone competition, concluded no state action is needed to combat location-specific payphone monopolies or subsidize "public interest" payphones needed for public's welfare at unprofitable sites. PSC set up payphone task force in June to study competitive situation. Panel reported that competitive market forces are preventing anyone from setting up location-specific payphone monopolies that allow **price** gouging, and said competing providers are serving all public payphone needs. It said there were 9,667 LEC-owned and 1,486 privately owned payphones in state. PSC told task force to continue monitoring payphone competition and file another status report in Nov. FCC order that deregulated local payphone rates in 1997 allowed states to take action against location-specific payphone monopolies and set up subsidy programs for public interest payphones. ----- NOW Communications in Ala. filed antitrust suit against BellSouth (BS) in U.S. Dist. Court, Birmingham, accusing BS of violating Sherman Antitrust Act and Telecom Act of 1996 by refusing to provide circuits for resale as required by interconnection agreement between 2 companies. NOW, which provides prepaid phone service to households unable or unwilling to buy conventional local service, said that up to 15% of Ala. households are prospects for its prepaid residential phone services but accused BS of "reckless and deliberate actions" in refusing to abide by interconnection contract that has denied NOW access to market. NOW asked court to compel BS to stop alleged discriminatory conduct and abide by contract.

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HOSPITAL PURCHASING Anti-GPO push eludes materials managers, but some
 vendor tactics draw resentment.

Hospital Materials Management, pNA
Nov 1, 1998

TEXT:

When a group of medical-surgical supply vendors recently accelerated their criticism of group purchasing organizations for ignoring small companies, the outcry fell on deaf ears in at least one quarter: hospital materials management departments. In late September the vendors formed For Patients' Sake, a Washington-based lobbying group that is calling for Congressional hearings and a Dept. of Justice investigation of antitrust violations by the groups (See story, page 6). "Never heard of Oem," was the identical response of Renee Landry and Dennis Jordan. Both are materials managers, and, when interviewed in October, were candidates for president elect of the Association for Healthcare Resource and Materials Management (AHRMM), Chicago. Landry is assistant director of materials management at the University of Texas Medical Branch, Galveston, Texas, 900 beds. Jordan is director of materiel services at Miami Children's Hospital, Miami, 188 beds. Miami purchases under contracts from Premier Inc., Westchester, Ill. UTMB uses contracts from Novation, Irving, Texas. Both groups have been accused of restricting access to small companies, both by failing to include them in contracts, and by keeping them out of member hospitals even for off-contract purchases. However, Jordan said he has had experience with one of the group's most vocal members, Retractable Technologies, Little Elm, Texas. Retractable's chief executive officer, Thomas Shaw, said in a letter to the editor, "Those hospitals who look elsewhere for better, safer products are threatened with expulsion from the GPO, and financial penalties (See HMM, May 1998). But Jordan had a different recollection. A sales representative called him once and asked him to buy the company's VanishPoint safety syringes. Jordan declined, saying the product did not

provide enough added safety protection, compared with other devices, to justify the difference in price. The sales rep then wrote a letter to the nursing supervisor, Jordan said, accusing the materials manager of not being concerned about safety. Jordan was furious, and still becomes angry when he thinks about it. Since then, he has discussed the company with other materials managers and found that that is a common tactic. If the thwarted sales rep cannot convince a clinical department to overrule the materials manager, he or she then goes to a higher official, claiming the manager is putting price before safety. Referring to Shaw, Jordan said, "This individual has come out with one product that he's trying to force onto the marketplace. The product is grossly over priced. Hospitals are simply not willing to pay this exorbitant price." He noted that alternative products and procedures are available to avoid sharps injuries. Based on the latest HMM price survey, standard syringe prices range from less than 10 cents to \$2 or more, depending on size and type. (see HMM price survey, March 1998). Retractable offers the VanishPoint at a list price of 55 cents. Landry has had no similar encounters. If a Retractable rep came to UTMB, she said, "We would see them, and explain our purchasing concepts. We use GPOs, but we also look at best value." However, she noted, Texas, also Retractable's home state, has a strict law concerning purchasing by state agencies. Small businesses, and especially those run by members of minorities, are welcome in state hospitals, in compliance with the Historically Underutilized Business program. There are no quotas, but agencies are rated on the percentage of their purchasing volume that goes to minority vendors. Last year UTMB spent \$21.5 million with minority vendors. "We do everything we can to make sure they have equal opportunity to bid on products outside of GPOs," Landry said. It was not clear whether Retractable or any of the other small vendors in For Patients' Sake would be eligible for minority status. A third materials manager, who had also never heard of For Patients' Sake, at least had a better experience with Retractable representatives. "They were very professional," according to Bill Backouris, director of materials management at Children's Hospital of Orange County, Orange, Calif., 192 beds. Children's buys through Premier as a member of Child Health Corporation of America, Shawnee Mission, Kan. Backouris said he uses the Premier contract for most needles and syringes, but after meeting the 80% compliance requirement, he buys the Retractable products. He said he learned about the VanishPoint from a distributor representative, and liked the totally retractable quality. Company officials then came to the hospital to explain the product. Backouris said he informed CHCA, and the GPO did not oppose his decision to add the Retractable products. n For a big urban hospital, letting distributor do the walkingNand stockingNpays off The University of Maryland Medical System, Baltimore, 747 beds, has just finished a six-month pilot program with Owens and Minor, Richmond, Va., in which O&M is taking over the hospital's distribution center. Annualized savings were \$315,000, not counting a \$100,000 salary savings from letting O&M run the operation. The outsourcing arrangement is part of a series of supply chain improvements at the hospital. It includes a Web-based ordering system that will offer a three-way link connecting the hospital, distributor, and manufacturers. The hospital, like many aging urban facilities, had limited on-site storage space. A variety of local distributors showed up once or twice a day to make just-in-time deliveries. Faced with a need to modernize, Richard Andrew, director of patient support services, put together a request for proposals containing a list of demands. They included a stockless distribution system, a computer system for inventory management, and a deadline of six months. "We kind of asked for the moon," Andrew recalled as he reviewed the results in late September. Other candidates included

Allegiance Healthcare Corp., McGaw Park, Ill.; McKesson General Medical, Richmond, Va.; and Medline Industries, Mundelein, Ill. The five-year pact with O&M began at the end of January, and implementation began during February. The pilot program ran just two weeks beyond the six-month limit, to allow for installing the Internet applications. But Andrews is not about to criticize. "Owens really put money into this," he said. For the hospital, there was no initial investment. The hospital now has an updated materials management system. The distributor provides internal distribution, maintaining par levels in the nursing units. It has hired six of the former hospital FTEs to do this. O&M also modified the hospital's inventory system to accommodate low units of measure; it had been designed to track only storeroom quantities. Internet orders are placed by downloading data from hand held trackers. The ordering system covers 15 key manufacturers, who fill orders based on supply levels in the distributor's warehouse. The system allows detailed tracking of supply usage. In return, O&M receives the bulk of Medical College's \$12 million annual med-surg purchasing volume. Andrew is also considering adding other product categories, such as laboratory supplies, to the contract. Andrew expects the savings to the hospital to grow as more products are standardized, and as Owens picks up more of the responsibility. "We're using them as a buying group, in a sense," Andrew said. The hospital is a member of Novation, Irving, Texas, where O&M is an approved distributor. However, this contract was developed independently of the group purchasing organization. n Columbia cast a wide net when it went distributor-shopping earlier this year. When Columbia/HCA, Nashville, Tenn., picked McKesson Corp., San Francisco, to distribute pharmacy and medical-surgical supplies to its 343 hospitals, it was not choosing from only the top three or four national health care distributors. After deciding it wanted to streamline its distribution network, the nation's biggest for-profit hospital chain cast a very wide net, according to a Columbia purchasing official. "We looked at everybody," he said. That included United Parcel Service, Atlanta, Federal Express, Memphis, Tenn., and just about every company that delivers packages. UPS has just opened a division specializing in health care, but that startup came after Columbia began shopping. The current distributor, Owens & Minor, was invited to bid as well. McKesson won hands down, according to the official. The pact is well on its way to implementation. A McKesson official said the company picked up \$180 million in Columbia business in the first 100 days. n PACS still popular, but issues of price and technology keep market growth down Predictions of widespread adoption of digital radiology systems in the next few years are now being toned down, a new study claims. Datamonitor, a market research and consulting firm based in New York, predicts that while hospitals will continue to convert to filmless imaging, problems with year 2000 compliance will keep the market from taking off as expected. PACS, or picture archiving communications systems, not only eliminate the need to buy X-ray film, but also cut down on labor costs through time savings. However, they are expensive and many hospitals have chosen to make the conversion in multiyear stages (See HMM, September 1998). Still, by 2002, 33% of hospitals are expected to have some degree of electronic imaging capability, if not a full PACS. According to the Datamonitor report, industry expectations of triple-digit annual growth rates are not coming to pass. One reason is that until recently, equipment from different manufacturers was often incompatible. Recently an industry standard was adopted for the technology that drives the imaging devices. Another improvement was higher speed transmission of images, since one advantage of PACS is supposed to be nearly instant transmission of the image from radiology department to doctor's office. While these advances will

ultimately help the PACS gain faster acceptance in hospitals, for now the momentum has been stalled by the Y2K priorities. Hospitals and health systems will have to devote more money to ensuring compliance of existing devices before the turn of the century, rather than making big capital purchases on the next generation of technology. The report states, "Therefore, though there exists upward momentum for the PACS market, as can be witnessed by its over 20% annual growth, a shift of finances to solving Y2K is hindering this growth." But price is an additional factor, the report notes. If prices decline enough, the predicted 33% of hospitals using PACS by 2002 could increase to as high as 38%. n Yet another distributor shuffle looms as Cardinal Health courts Allegiance. Within months of losing a bid to join up with fellow pharmacy wholesaler Bergen Brunswig, Cardinal Health Inc., Dublin, Ohio, has found another partner. Cardinal plans to acquire Allegiance Healthcare Corp., McGaw Park, Ill., by July 1999. The move would make Allegiance, recently spun off from its parent Baxter International, Deerfield Park, Ill., a subsidiary of Cardinal. Bergen, based in Orange, Calif., with its 28 medical surgical distribution centers, was the first choice, but the Federal Trade Commission denied approval based on the combined pharmacy market share. Materials managers did not share that concern: most believed the combined company would create efficiencies that would ultimately save them money (See HMM, February 1998). Mack McKay saw the latest news as "very positive." He is director of materiel management at St. Joseph Hospital, Denver, 601 beds. As it happens, St. Joseph now uses Allegiance for med-surg distribution, and Cardinal for drugs. "Now we've got a supplier for drugs that can use Allegiance's distribution arm, for supply chain management of pharmaceuticals," McKay said. Another advantage would be savings from further consolidation of procedure packs, he noted. For example, Allegiance provides procedure based packs for the operating room, but currently cannot include anesthesia drugs. Now, McKay said, it will be able to include anesthetics under the same procedure-based fee structure. Allegiance is the med-surg distributor of choice for many hospitals and groups. Cardinal would add exactly one med-surg warehouse to the combined company, in Hartford, Conn. A combined company would be strong in the acute care market, observers note, but would not have much to offer long-term care facilities. Allegiance recently became prime distributor for Kaiser Permanente, a national health maintenance organization based in Oakland, Calif. Kaiser also named Bergen its prime pharmacy distributor. n Military hospitals begin to standardize materials management systems with SPS Portsmouth Naval Medical Center, Portsmouth, Va., 342 beds, has begun converting its materials management operations to the Dept. of Defense's new Standardized Procurement System (SPS). One early result is that receiving, formerly an automatic function, has to go back to the scenario of clerks filling out manual receipts. The apparent step backwards is an indication of the scope and variety of individual systems that the SPS is replacing nationwide. Conversion was mandated Oct. 1, the beginning of the new federal fiscal year. The Windows-based client-server system marks the first time procurement has been standardized for the entire military. It is designed to coordinate with the Defense Medical Logistics Standard Support System, the medical-surgical purchasing system used by all three branches. Until now, however, each military hospital had its own interface with the med-surg, pharmacy, equipment and other system modules. Portsmouth had used the SACON software provided by an Arlington, Va.-based company, CACI. That software includes the capability of electronic recording of arriving products, a component that so far hasn't been incorporated into SPS. SPS version 4.0, now in a testing phase, will carry a receiving module. Currently, the hospital has version 3.5.3c. Payment will change too.

"Receipt control certifies the invoices for payment. They were able to able to print certification documents out of our SACON system," recalled contract manager Peggy Martin, who is also the site implementation manager for SPS. "Now they have to go back to typing out certifications for payment." A later version of SPS will have this document printing capability. The hospital's director of contracting, Lisa Price, said a variety of upgrades, some not yet determined, are anticipated. SPS was first tested at various DoD sites earlier this year, and personal computers were installed at Portsmouth and other hospitals this spring. The 26 main users at Portsmouth will be procurement specialists and purchasing agents. Actually, according to Cmdr. Bill Roberts, who heads the materials management department, SPS is intended to do away with all paper processing. It utilizes the electronic catalog,

featuring uniform product numbers, that has been strongly promoted by the DoD. SPS and the medical logistics modules will be phased in at different military locations throughout 1999. v group PURCHASING n Pair of safety syringe contracts don't stop protests against GPO contracting policies Purchase Connection, Chatsworth, Calif., has signed a contract that will add retractable needles to its portfolio on needles and syringes. The vendor is Retractable Technologies, Little Elm, Texas, and the agreement covers the company's VanishPoint[umlaut] line of needles. It took effect Oct. 1, and runs for three years. Purchase Connection is the second major group purchasing organization to contract for the retractable devices, which are designed to prevent needlestick injuries. Earlier this year, AmeriNet Inc., St. Louis, signed a similar pact. Although it was signed earlier, the AmeriNet contract also took effect Oct. 1. Savings on the safety devices are measured in the avoidance of needlesticks, which the company says cost an average \$2,500 to treat, and occur in one of every 5,000 injections. The price of a standard syringe ranges from less than 10 cents to \$2 or more (see HMM price survey, March 1998). Retractable offers the VanishPoint at a list price of 55 cents. The contract discounts reduce that to about 45 cents. A Retractable spokeswoman said in mid-October that implementation had not begun on the Purchase Connection deal, but that about 12% of the AmeriNet hospitals contacted so far had ordered VanishPoint needles under the contract. However, an AmeriNet official said he had not received any information about the contract. The two group purchasing contracts came just as a group of vendors, including Retractable, accelerated their long-standing criticism of GPOs for ignoring small companies. The vendors formed For Patients' Sake, a Washington-based lobbying group that has called for Congressional hearings and a Dept. of Justice investigation of antitrust violations by the groups. In addition to Retractable, the group includes the following companies: Dexide Inc., Fort Worth, Texas; Xodus Medical Inc., Pittsburgh; Greiner Meditech, Bel Air, Md.; GSC Inc., Virginia Beach, Va.; The Claflin Company, East Providence, R.I.; and United Medical Supply, Fort Worth, Texas. For Patients' Sake issued a statement saying the "two largest GPOs (later identified as Premier Inc., Westchester, Ill. and Novation, Irving, Texas) limit access to medical equipment" because of purchasing contracts. Premier has stiff compliance requirements, generally 80%, for many contracts, leaving the remaining 20% to the hospital's discretion. Novation has inherited the contracts of two voluntary groups that merged purchasing operations this year, and is beginning to put together a new portfolio. It does not have compliance requirements except for a special committed buying program. Lillian Salerno, executive vice president of Retractable, a member of For Patients' Sake, told HMM that when her sales people approach hospitals that are members of these groups, they are often ignored unless they respond affirmatively to the question, "Are you a contract supplier?" As a

result, she said, her company believes that for needles at least, a group contract means 100% of the business. "There's no 20% in the syringe industry," she said. Premier issued two statements in response to the charges. The first said: "Premier acts appropriately within the law. Any claims that we act inappropriately or contrary to laws or regulations are false. In addition, we are unaware of any current investigations by the Justice Department, the FTC, or anyone else." In a second, longer statement, the GPO added, "New devices are frequently being added to our contract array as technology advances, and our contracts provide for our hospitals to take advantage of these advances and carry out their own clinical evaluations. Claims to the contrary are simply not true." Novation spokesman Lynn Gentry said of the For Patients' Sake group, "We

don't feel their claims are valid. Any company can submit a bid." In fact, he said, before a new syringe contract is awarded early next year, Novation plans to invite Retractable to bid. Currently Premier has a sole-source contract with Becton Dickinson & Co., Franklin Lakes, N.J. Novation has a dual-source pact with Becton Dickinson and Sherwood Davis & Geck, St. Louis. So far, the organization that represents GPO interests in Washington has not taken up the issue. In fact, the Health Industry Group Purchasing Association (HIGPA), has not been officially notified of the For Patients' Sake charges. Executive director Robert Betz told HMM he only heard of the group because a few HIGPA members called him to ask about it. "They haven't called me," he said of For Patients' Sake, "and I run the national trade association for the industry." The AmeriNet and Purchase Connection contracts were negotiated by a manufacturer's representative, HealthCare Institutional Management, Boca Raton, Fla. HIM was founded in June to represent small companies like Retractable with GPOs, according to chief executive officer Leo Shpiz. "It's hard for small manufacturers to get an audience unless they know their way around," Shpiz said. "It's not an easy thing to do, but it is doable." HIM works only on GPO contracts, not hospital contracts. Shpiz said so far he has not tried to approach Premier. When it comes to getting into hospitals, not all companies share Retractable's experience. Another organization representing small manufacturers, the Independent Medical Distributors Assn., Mission, Kan., said it decided not to join the For Patients' Sake movement. According to spokesman Mark Thill, "IMDA looked at this, and elected not to participate. The reason reflects the diversity in the group itself. Some members benefit from group contracts. There's a split." Even within some companies, he noted, some products are part of group contracts and others are not. However, many small companies, including IMDA members, take their new technology directly to clinical departments. Many, Thill noted, do not sign contracts, but make ongoing sales based on **regular** orders. Materials managers may not even be aware of these tiny niche players. Thill recalled spending a day with a sales representative for one member. The rep would pay a courtesy visit to materials management, but the real sales pitch took place in the user departments. "Our guys are talking clinical techniques," Thill said. "That's their history." But IMDA has begun inviting materials managers to its regional meetings, to begin to build communication channels with purchasing. They are learning, he said, that cost is also a factor and they need to address that. "Our members are realizing that they have to learn how to make a broader sell." In Health care spending and GPO influence to take off in next decade, study predicts The health care supply market will nearly double in value, to \$326 billion, during the next 10 years. That means tremendous growth potential for group purchasing organizations, which currently manage 80% of the current \$179 billion in annual spending by hospitals and nursing homes. As the care location options shift, inpatient hospital spending will grow by 4.7% in the next decade, but that

growth will be dwarfed by increases of 9.2% for outpatient treatment sites and 6.2% for nursing homes. These are among the findings of statistical analysts at Muse & Associates, a Washington-based consulting firm that has performed studies for Congressional panels in the past. Its most recent study, from which the above projections are taken, was done for the Health Industry Group Purchasing Association (HIGPA), Washington. Findings were announced at the recent annual meeting of HIGPA in Orlando, Fla. According to Donald Muse, founder and president of the company, health care is "bullet proof" compared with other sectors of the economy. Even if the U.S. economy becomes caught up in the worldwide recession, he said, industries like automobiles and housing may suffer, but health care spending will continue to grow. Muse told the group of about 550 GPO executives and vendor representatives that "You are all living in a very robust sector of the economy." The news for acute-care hospitals was less ebullient: "Hospitals are moving their marketplace," Muse said, noting that the pace growth in outpatient facilities will outstrip that of hospitals between now and 2008. He predicted that by three years from now, the number of hospitals in the U.S. will decrease from about 6,000 now to 5,000 to 5,500. GPO executives at the meeting responded to the news by agreeing that it vindicated their recent decisions to go after the long-term care and physician practice sectors. That could shift contracting emphasis from medical-surgical to other supplies. David Roesler, a senior vice president at Purchase Connection, Chatsworth, Calif., said his group already has many nursing home members. These members spend much more on food and dietary products than on either drugs or med-surg supplies, he said. The outlook for a strong medical market also sparked a resurgence of this year's ongoing debate about the heroes and villains of consolidation. Todd Ebert, executive vice president of AmeriNet, St. Louis, cautioned that groups must be flexible, as they will find more integrated delivery networks among their members. IDNs, or combinations of hospitals and other types of facilities, may have the purchasing power of small GPOs, and many are debating the merits of remaining with their GPOs. John Strong, head of the newly formed Catholic GPO, Consorta Catholic Resource Partners, Rolling Meadows, Ill., said suppliers and GPOs need to work together, not compete for IDN business. "I wish suppliers would communicate with GPOs," he said, rather than making individual deals. GPOs **offer** value to IDNs, he insisted, because they take over many costs associated with purchasing, especially contract negotiations. At least one supplier defended GPOs from the IDN argument that only the latter **offer** true compliance. Ira Miller, vice president of Picker International, Cleveland, Ohio, told his colleagues, "There's value in a non-compliant contract." The group's influence with its members can bring up the supplier's market share, he pointed out. Consorta settles into Illinois offices, ponders first dozen med-surg awards Three months after its formation the nation's biggest group purchasing organization for Catholic hospitals signed its first contract, a pharmacy pact, and issued 14 more requests for proposals for a variety of medical-surgical products. But don't expect the country's newest megagroup to rush headlong into a contracting spree. Consorta Catholic Resource Partners was due to move into its new offices in Rolling Meadows, Ill. in October. On the first of that month its first contract became effective, a two-year deal with Amgen Pharmaceutical, Thousand Oaks, Calif. It is a renewal of a contract the new GPO inherited from its new members, Catholic Materials Management Alliance (CMMA), St. Louis, and Sisters of the Sorrowful Mother-Diversified Health Services (SSM-DHS), Milwaukee. It covers two proprietary biotech products, Epojen and Neupogen. While that fairly routine deal got to be the landmark only because the previous one was about to **expire**, Consorta officials are looking much harder at

the upcoming med-surg portfolio. Bids on those first 14 RFPs were due during October. They include surgical and examination gloves, laparotomy sponges, general wound care, X-ray film, and intravenous solutions and sets. Consorta's new chief executive officer is John Strong. Strong is well-remembered as the chief operating officer at Premier Inc., Westchester, Ill., when that group began rolling out its first national contracts. Those deals, which covered contrast media and X-ray film, featured deep discounts in return for unrelenting compliance. Now, Strong said in a recent interview, he is ready to build on the experience of Premier's early days. One lesson, he said, is the importance of being "deliberate" and not rushing into any major deals without considering the consequences to suppliers and hospitals. It means, he said, "having a viable contracting plan, being deliberate, and following a well-thought-out plan." His first step, purchasing-wise, will be to develop a timetable for future contracts. Materials managers will have a big influence on supplier negotiations, he said. Consorta has already set up six clinical committees and a contracts and programs committee that includes materials managers from shareholder systems. At least one growing hospital system is looking forward to the next Consorta deals. St. Vincent Hospital, Indianapolis, 729 beds, is a member of Daughters of Charity National Health System, one of the CMMA systems. But it is also part of a five-hospital alliance, as yet unnamed, covering central Indiana, with additional hospitals and clinics considering joining. Mike Pool is director of materials and logistics for St. Vincent Indianapolis and its affiliates. Currently, he said, only half of the aggregate supply expenditures are under CMMA contracts, and St. Vincent is working with vendors to get even better pricing because of its local market clout. But Pool said he plans to share any good deals he makes with national Consorta office, in hopes of expanding the benefits. "We think it's an enhancement," he said of the Consorta consolidation. "In the future, we may very well be able to provide information and assistance to the national group. There will be no secret agreements." At the latest count, Consorta includes 296 hospitals from 12 systems, plus 138 nursing homes. It has 54,300 beds and annual purchasing volume of \$2 billion. While SSM-DHS has more member systems, CMMA accounts for the bulk of medical-surgical purchasing, with an annual volume of about \$1.5 billion. Until July 1, when Consorta was formed, one of the CMMA systems, Daughters of Charity National Health System, South Bend, Ind., handled contracting for CMMA. According to Jonah Hughes, who has been Daughters of Charity's vice president of purchasing since 1985, CMMA "will now refocus on internal logistics and materials savings." It will let Consorta take over the external side of contracting, he said. The new national Consorta office is located at 3701 Algonquin Road, Suite 550, Rolling Meadows, IL 60008. Telephone: 847-255-6990; fax 847-255-6991. n Premier signs cardiovascular agreement with Medtronic, part of cardio portfolio Premier Inc., Westchester, Ill., has signed the first of what it says will be a series of cardiovascular agreements. Medtronic Inc., Minneapolis, is the vendor in the pact, which took effect Oct. 1. It covers cardiovascular products and services, including pacemakers and implantable defibrillators. The firm is also a candidate for a cardiac surgery contract that is expected by the end of the year. Also on the agenda for year-end conclusion are contracts covering orthopedic products. n Progress continues in compliance, but OIT takes time,' say materials managers Premier Inc., Westchester, Ill., has been a national group purchasing organization for nearly three years now, and there are probably few in the hospital purchasing field who don't know about its contract compliance rules. That doesn't mean everybody is in compliance now. With a few big contracts such as cardiology supplies and orthopedic implants still awaiting consolidation, individual hospital

members are moving gradually to switch to current Premier suppliers. "It takes time," protested one purchasing director at a midwest hospital system with about \$200 million in annual purchasing volume. So far, about 40% of that goes to Premier suppliers. For one thing, as in any integrated delivery network, clinicians in each of the four member hospitals have to evaluate and approve the Premier products before agreeing to switch. So far, the biggest reported savings at this IDN have come from Premier contracts for operating room, cardiology, and imaging supplies, and from office supplies, especially forms. v Savings add up as hospital pares items from OR inventory The cost of maintaining inventory can be high. Even if keeping individual items on hand seems minimal, as with 3 cent needles, for example, it adds up over time. One East Coast hospital, working with a vendor consultant, found it could knock about \$4,350 off the cost of operating room inventory without sacrificing needed supplies. Mercy Community Hospital, Port Jervis, N.Y., 181 beds, standardized using the TracePac program from DeRoyal, Powell, Tenn. The hospital first tracked usage and ordering patterns, and is in the process of converting to custom **packs** for some procedures. The cost listed is unit cost (each). Vendors mentioned include 3M, St. Paul, Minn.; Allegiance Healthcare Corp., McGaw Park, Ill.; Becton Dickinson & Co., Franklin Lakes, N.J.; C.R. Bard, Covington, Ga.; Johnson & Johnson Medical Inc., Arlington, Texas; Kendall Co., Mansfield, Mass.; U.S. Surgical Corp., Norwalk, Conn.; Valleylab Inc., Boulder, Colo., and Zimmer Inc., Warsaw, Ind. The following table shows how the stocks of selected items were reduced and the resulting savings. v Materials managers can lead the way to EDI By Michael G. Cadwell Technological advances such as increasingly powerful desktop computers, high speed modems and data encryption have paved the way for paperless, business-to-business transactions in a manner that was impossible only a few years ago. Forward-thinking materials managers, ever vigilant for opportunities to reduce expenses, will no doubt see the benefits inherent in a future where nearly all information flows and transactions occur electronically. Real cost-saving opportunities The growth of trade on the InternetNboth direct to the consumer and business to businessNhas been nothing short of explosive; it is little wonder, considering the possibilities for electronic commerce to eliminate paper handling, reduce procurement cycle time, eliminate middlemen, and provide real-time order delivery status. Although various sources define it in diverse ways, for our purposes electronic commerce will be defined as the ability to search for, requisition, order, receive confirmation and pay for products and services via computer. Those materials managers who have not considered the potential of electronic commerce for their organizations, might want to consider the following procurement process, which would be possible to implement today with off-the-shelf technology. From end user direct to vendor An end user in need of supplies logs on to the materials management ordering system, using his or her unique security code. A customized list of items appears on a screen, based on the supplies most commonly ordered by that department. If the sought-after item is on the list, the user merely puts in the desired quantities, and presses the "enter" key, and the requisition is on its way. Supplies on the department-specific catalog are typically high-volume items under contract with on-line key suppliers, with terms and conditions already placed on the system by the purchasing department. After the system checks the item types and dollar amounts being requisitioned against the individual's pre-approved authorization, the requisition is automatically routed in one of two directions. It goes to the department manager if the items or dollar amounts are beyond the authority of the end user. If the order meets the authorization criteria, the requisition is converted to an order

automatically in the system and routed directly to the vendor without any additional human intervention. Electronic catalog If the supply the end user seeks is not commonly ordered, the individual accesses an electronic catalog of items. The catalog contains all items for which the hospital has an existing contract. After the requester types a few key words or descriptive phrase into the search engine of the catalog, the catalog returns a list of all supply items matching the search criteria, including pictures of the items. If the individual finds the item he or she is searching for, a double click on the item will pull all the product information into a requisition form which, after the obligatory authorization check, will be routed directly to the vendors who are on line with the facility or to the purchasing department for placement. Purchasing is there to help If the supply is not found in the catalog, the requester can submit an incomplete request to purchasing, filling out the known product information. Purchasing then researches the product, determines pricing and places the order, contacting the end user only if necessary. If the vendor of the product is on line, the order is placed electronically. If not, most likely the order will be placed by facsimile or phone. Information on all orders placed with vendors is passed automatically to the accounts payable department for invoice matching purposes. The main advantage of the above requisitioning process is that purchasing department intervention is only required for non-routine, non-contract supplies, or to place orders with vendors who are not on-line. Vendors fill orders electronically Once the order is placed, the vendors receive the order, check their inventory and then confirm their ability to fill the order. For those who are on line, the order confirmation is electronically sent back to purchasing and accounts payable. For other vendors, facsimile information is received and then placed into the system where it is available to purchasing, receiving and accounts payable. This order confirmation serves as the invoice. Once items arrive at the facility, receiving information is placed into the system where an automatic reconciliation between the order, invoice and receiving information takes place. If all information matches within predetermined tolerances, the invoice is cleared for payment. Discrepancies are automatically flagged for resolution by purchasing. On to accounts payable For all items cleared for payment, accounts payable accesses the vendor's payment profile, which includes bank routing information, and authorizes payment electronically from the hospital's bank account into the vendor's. No checks are printed or mailed. The scenario painted above is not at all a flight of fancy. Some current operations are even more advanced. Some of the benefits of the procurement system described above depend on the electronic capabilities of vendors as well as those of the hospital, but given the nature of competition among vendors for hospital business and the obvious efficiencies which benefit them as well, many vendors are already well ahead of hospitals in this regard. Given the increasingly sophisticated ability of vendors to handle electronic commerce, the continuing **price** pressures faced by health care providers and the technological advances which make electronic commerce more efficient and affordable on a daily basis, it seems inevitable that electronic commerce will make significant inroads into the healthcare industry. The challenge for materials managers is to prepare their organizations for the coming **changes** so they are ready to take full advantage of the opportunities electronic commerce affords when they present themselves. v Michael G. Cadwell is a senior manager in Ernst & Young's Health Care Consulting practice, Denver. For the past five years, he has helped numerous hospital systems improve supply chain management.

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Promo, n1047-1707, pNA

August, 1998

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This CD-ROM Is a Cherry . . . Coke Some technology-infused promotional options deliver high-perceived-value to consumers at low-ball costs to marketers. Take, for instance, Fusion 5's Lost Island of Alanna promotion for Cherry Coke. "Cherry Coke isn't among the top five soft drink brands, so it doesn't get huge marketing support," says Patrick Meyer, president of the Westport, CT-based Fusion 5. "We studied their profile and told them they needed to create a brand mythology. They needed to get teens talking to each other about Cherry Coke." A mythology is what Cherry Coke got, in the form of The Lost Island of Alanna, a CD-ROM game that sends players on a quest through the world of a fictional Mesopotamian culture. Starting in April, Cherry Coke distributed one million copies of Alanna through inserts in magazines such as GamePro, at record and game stores, and on a road tour

of experiential sampling trucks. Kids spend as much as \$70 on CD-ROM and video games, so they eagerly snapped up free copies of Alanna. Meanwhile, Cherry Coke's costs added up to a few hundred thousand dollars for development of the game plus about 45 cents a copy. Cherry Coke marketers made a shelf link with the game by imprinting labels of 20-oz. bottles with arcane symbols that are used in the Alanna game. Players who make it to the end of the game enter a vault where the meaning of the symbols is revealed. Armed with this secret knowledge, they can then decipher secret fortunes on the bottles and under bottle caps. No largesse is awarded outside of the CD-ROM itself. "Drinking Cherry Coke is doing something different. With Alanna, we created a world that was different, and we weaved brand messages into that world," says Meyer. Fusion 5 also set up a Web site and chat room for Lost Island of Alanna players, forcing the objective of getting teens talking about the brand. Product movement was also ramrodded, since players buy an average of 10 to 12 bottles of Cherry Coke each to get symbols needed to complete the game. "Every company has a Web site, but teenagers today are way past that. They're so far beyond everyone in the cyber-world," notes Meyer, whose agency specializes in the teen and young adult markets. 'Direct Marketing on Steroids' "The opportunity for one-to-one marketing on the Internet is tremendous, but no one has cracked the nut," says Modem Media creative director Tom Beeby. Then he adds, "We think we've done it." Beeby is talking about a new service from his Westport, CT-based interactive marketing agency called TNToaster, a combination banner ad placement and database system that Modem Media claims gives clients the ability to tailor offers - and even site locations - to individual Web surfers. "This system gives total control to marketers on the Web," says Beeby. "They can send out different sell approaches to different people, find out what's working and kill the others. They can **change** the colors, **change** the **offer**. They can say, 'Mr. X hasn't clicked on this in five visits. Let's sweeten the deal.' It's direct marketing on steroids." Modem Media tested TNToast last winter in an Olympics promotion for AT&T. Banner ads led Web surfers to AT&T's site to collect interactive trading cards of Olympic athletes. Each time a consumer collected a new card, he or she received an entry into a drawing for tickets to the next Olympics. TNToast allowed AT&T to track which cards were collected by which individuals. During the promotion, a participant might have been scanning selections on CDNow.com and seen a banner ad saying, "You still need two more cards to complete your Olympic set. Click here and go to the AT&T trading room." Consumers could do deals in the trading room with people all over the world, reinforcing AT&T's positioning as the leader in global communications. "Response rates were about 35 times the industry average," claims Beeby. "People almost never didn't click on the banner ads." Modem Media operates TNToast with a small staff through a third-party server. The software that drives the system was developed by Cupertino, CA-based IMGIS. Internet Gamepieces -Fantastic! Having a Web site with awesome Shockwave games and killer prizes is all well and good. Bottom line is, you still have to get people to the site, and printing your URL in agate type on the bottom of your package just doesn't cut the mustard. To promote its new Internet access service and baseball-branded browser, MCI, a sponsor of Major League Baseball, distributed 1.3 million static-cling, Mylar gamepieces to fans attending games at 13 ballparks. For chances to win tickets to this year's World Series and next year's All-Star Game, the piece instructed the fans to punch up www.mcibaseball.com on their computers, click to the contest screen, and stick the gamepiece over a special blue field. A message then appears on the game piece announcing "You're a winner!" or "Sorry, you lost." The Magic Internet Decoder, as it's called, is hardly high-tech, but sometimes complex systems beg for

simple partners to function in the workaday world. Atlanta-based Promo Unlimited holds a patent on the decoder, which is marketed by Fantastic Marketing Resources, Inc., also of Atlanta. Shelf Talker, Meet Shelf Scanner Marketing technology may knock your socks off, but its worthless if it's too pricey to reach the masses. The Speakstakes machine from Philadelphia-based Data Display Systems is one with high sock-knocking value at a **price** that enabled 7Up to place it in 4,000 supermarkets for a recent promotion. Speakstakes employs a patented photo-transistor scanning head to read coded game cards and respond with anywhere from three to 10 audio messages. Units, which can be made in any shape, size, or form, run between \$75 and \$200 apiece. Marketers who've used the device have delivered game cards via direct mail, in-packs, or magazine inserts. "It's a great traffic-builder, because people have to bring the cards to the store to see if they've won," says Data Display Systems president Bob Levitt. "Prize fulfillment can either be immediate at checkout or by mail response." Speakstakes does data capture, too. Machines are mailed back to the supplier after the promotional period is up, and memory chips are downloaded to reveal participants. Even consumers who received game cards in magazines can be identified, says Levitt, through linkage with subscription codes. Buick and Goodyear will soon launch Speakstakes promos, each spanning 3,000-plus locations. It's a Card Party Remember reading all those magazine articles 15 years ago about the future cashless society? Well, the electronic cash card has arrived, and it looks like the promotion industry will be carrying its bags. A consortium of seven financial companies including MasterCard, Citibank, and Novus are partners in Mondex USA, which is currently testing a "smart card" with several merchants on Manhattan's Upper West Side and at four Burger King locations on New York's Long Island. Consumers purchase the cards by inserting cash or debit cards in vending machines and loading cash value (usually in small amounts) onto the electronic cash cards. At the cash register, consumers themselves insert the cards into magnetic scanners, which deduct the amount of the transaction. Question is, why would consumers take the time to stick a 10-spot into a machine to get another card they have to shove somewhere else when they could just hand the tenner to the burger jockey in the funny hat? That, Mondex USA spokeswoman Janet Otsuki confesses, is what her company is trying to find out. And it looks like the answer is, "extra goodies." Burger King customers who purchase cards at the test restaurants receive one loyalty point for every dollar spent. Ten points returns a free breakfast value meal, 15 a Whopper, and 20 a **regular** value meal. "We think rewards are what will do it," says Otsuki. "We want to see how loyalty programs will affect usage." Cash-a-Cola Coca-Cola knows exactly how to win the hearts of consumers during the summer soft drink promo blitz: Pay them off. And technology has provided Coke a cash delivery system more seamless than MagiCans. For the second consecutive summer, the brand has partnered with MasterCard to place ATM cards in 2.2 million packages of Coke (out of a total distribution of 1.5 billion). Every card is a winner, paying out either \$20, \$40, or \$100 at 140,000 MasterCard/Cirrus cash machines nationwide. It's an elegantly simple application of commonplace technology. Coca-Cola simply opens a prize account with MasterCard and closes it when the promotion deadline **expires**. Winners are all instructed to use the PIN number that spells, "Always." The cards can also be used to activate buy-one-get-one free offers on Coke products and discounts on tickets to amusement parks, movie theaters, and sporting events. The Digital Conversation Complex technology can make simple response mechanisms, and that can add up to powerful promotion. Interactive telephone systems not only eliminate the need for entry forms and stamps, they also make it possible for marketers

to make good on an old threat: creating dialogs with their best customers. Taubman Mall Properties malls in the Washington, DC, area began talking to shoppers this year with an interactive program called Shopper Rewards, an execution of the Smart Spiffs program administered by St. Petersburg, FL-based Phoneworks. After making purchases at participating mall stores, shoppers received peel-off gamepieces instructing them to call a toll-free number to learn if they've won instant prizes and to register points redeemable for catalog prizes. As part of the registration process, they use their phone keypads to enter information such as interests, shopping habits, and addresses. Shoppers who respond that they like to cook, for example, could receive a direct mail **offer** from the Williams-Sonoma store in the mall. And appeals could be **customized** to them when they call the toll-free number, because the smart phone system identifies who's calling by his or her phone number. "It allowed the stores in these malls to talk to these people directly more than once a week when they're at the mall," notes Phoneworks president Brad Wendkos. Push-Button Promoters Today's time-poor, self-absorbed consumer is much more apt to respond to an **offer** if it means punching a few buttons. That's why you'll see kiosks being put to more and varied uses in the coming years. Riverside Technologies of Wilton, CT, is about to import a kiosk program it ran for New Zealand's professional rugby league. When buying tickets, fans received lenticular trading cards picturing rugby stars that could be inserted into kiosks at stadiums for instant win prizes of game tickets, licensed merchandise, or concessions. Captured personal information was then used by the league to build a core-fan database. Riverside is now shopping the program to professional sports leagues in the U.S. One idea is to make it an electronic ballot box for all-star selection and build a database to create a club loyalty program. Kiosks that help consumers make purchase decisions - especially with retail's high labor turnover - will soon be more prevalent, too. The ChoiceMaster kiosk from Beverage Marketing Technologies in Katonah, NY, uses a touchscreen to help shoppers make informed beverage selections. A consumer can touch "Food Matches," enter the type of entree being served and a desired **price** point, and receive a printout of suggested wine selections. The company is testing kiosks in 200 stores, including A&Ps, Walgreens, and Krogers. A number of spirit and mixer brands are testing ads and promo offers on the machines.

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APPARATUS AND METHODS FOR COLLECTING VALUE
VORRICHTUNG UND VERFAHREN ZUR WERTERFASSUNG
APPAREIL ET PROCEDE D'ENCAISSEMENT

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CLAIMS EP 944879 B1

1. A system for safe collection of payment in return for at least one of goods, values and services, the system comprising:
a multiplicity of electronic system elements (20, 60, 70, 80) wherein each individual one of the elements has a purse storing an amount of credit for value receivable granted to the individual system element, each purse including:
a purse monitor operative to sign and authenticate a transaction record of each transaction in which the purse uses some of the credit for value receivable which it has been granted; and
a purse control unit operative to prevent said purse from exceeding the credit for value receivable which it has been granted, wherein at least one first purse from among said multiplicity of purses includes a credit granting unit operative to grant an amount of credit for value receivable granted to at least one second purse from among said multiplicity of purses only in response to activation by at least one system director and operative to record information regarding the activation including the identity of said at least one system director.
2. A system according to claim 1 wherein each of said purses includes a SAM (security application module) (1310).
3. A system according to any of the preceding claims wherein each purse monitor is public-key protected.
4. A system according to any of the preceding claims wherein each purse control unit is public-key protected.
5. A system according to any of the preceding claims wherein the purse monitor is operative to sign and authenticate the transaction record as a time-stamped transaction record and wherein the purse control unit is operative to prevent said purse from extending the credit for value receivable which it has been granted over more than a

predetermined period of time.

6. A system according to any of the preceding claims wherein said purse control unit is operative off-line.
7. A system according to any of the preceding claims wherein said at least one system director is a predetermined plurality of system directors.
8. A system according to any of the preceding claims wherein said value receivable comprises cash receivable.
9. A system according to any of the preceding claims wherein said value receivable comprises accounts receivable.
10. A method for safe collection of payment in return for at least one of goods, values and services, the method comprising:
providing a multiplicity of electronic system elements (20, 60, 70, 80) wherein each individual one of the elements has a purse storing an amount of credit for value receivable granted to the individual system element; and, for at least one of the purses, signing and authenticating a transaction record of each transaction in which the purse uses some of the credit for value receivable which it has been granted; and
preventing said purse from exceeding the credit for value receivable which it has been granted, wherein at least one first purse from among said multiplicity of purses grants an amount of credit for value receivable granted to at least one second purse from among said multiplicity of purses only in response to activation by at least one system director and operative to record information regarding the activation including the identity of said at least one system director.
11. A method according to claim 10 wherein each of said purses includes a SAM (security application module) (1310).
12. A method according to claim 10 or 11 wherein each purse monitor is public-key protected.
13. A method according to claim 10, 11 or 12 wherein each purse control unit is public-key protected.
14. A method according to any of claims 10 to 13 wherein the transaction record is time-stamped and wherein the step of preventing prevents said purse from extending a credit for value receivable which it has been granted over more than a predetermined period of time.
15. A method according to any of claims 10 to 14 wherein said purse control unit operates off-line.
16. A method according to any of claims 10 to 15 wherein said at least one system director is a predetermined plurality of system directors.
17. A method according to any of the preceding claims wherein said value receivable comprises cash receivable.
18. A method according to any of the preceding claims wherein said value receivable comprises accounts receivable.

CLAIMS EP 944879 B1

1. System fur eine sichere Entgegennahme von Zahlungen als Gegenleistung fur zumindest eines der folgenden, namlich Waren, Werte und Dienstleistungen, wobei das System aufweist:
eine Mehrzahl elektronischer Systemelemente (20, 60, 70, 80), wobei jedes einzelne der Elemente eine (elektronische) Geldbörse hat, die einen Betrag eines Guthabens fur den Wert einer Forderung speichert, die fur das individuelle Systemelement garantiert ist, wobei jede Geldbörse aufweist:
eine Geldbörsenüberwachung, die so arbeitet, das sie eine Transaktionsaufzeichnung jeder Transaktion, in welcher die Geldbörse

einen Teil des Guthabens verwendet fur einen Forderungswert, der garantiert worden ist, unterzeichnet und authentisiert, und eine Geldborsensteuerungseinheit, die so betreibbar ist, das sie verhindert, das die Geldbörse das Guthaben fur Forderungswerte, die garantiert sind, überschreitet, wobei zumindest eine erste Geldbörse aus einer Mehrzahl von Geldbörsen eine Kreditgewährungseinheit aufweist, die so betreibbar ist, das sie einen Guthabenbetrag fur garantierte Forderungswerte zumindest einer zweiten Geldbörse aus der Mehrzahl der Geldbörsen gewahrt, und zwar nur in Reaktion auf die Aktivierung durch zumindest einen Systemleiter, und die so betreibbar ist, das sie Information aufzeichnet, die sich auf die Aktivierung bezieht, einschließlich der Identität des zumindest einen Systemleiters.

2. System nach Anspruch 1, wobei jede der Geldbörsen ein SAM (Sicherheitsanwendungsmodul) (1310) aufweist.
3. System nach einem der vorstehenden Ansprüche, wobei jede Geldborsenüberwachungseinrichtung durch einen öffentlichen Schlüssel geschützt ist.
4. System nach einem der vorstehenden Ansprüche, wobei jede Geldborsensteuerungseinheit durch einen öffentlichen Schlüssel geschützt ist.
5. System nach einem der vorstehenden Ansprüche, wobei die Geldborsenüberwachungseinrichtung so betreibbar ist, das sie die Transaktionsaufzeichnung unterzeichnet und authentisiert als eine mit einem Zeitstempel versehene Transaktionsaufzeichnung und wobei die Geldborsensteuerungseinheit so betreibbar ist, das sie verhindert, das die Geldbörse das Guthaben für Forderungswerte, welche garantiert wurden, für mehr als eine vorbestimmte Zeitdauer überschreitet.
6. System nach einem der vorstehenden Ansprüche, wobei die Geldborsensteuerungseinheit off-line arbeitet.
7. System nach einem der vorstehenden Ansprüche, wobei der zumindest eine Systemleiter aus einer vorbestimmten Mehrzahl von Systemleitern besteht.
8. System nach einem der vorstehenden Ansprüche, wobei der Forderungswert Bargeldforderungen aufweist.
9. System nach einem der vorstehenden Ansprüche, wobei der Forderungswerte Buchwerte bzw. Buchforderungen aufweist.
10. Verfahren für den sicheren Empfang von Zahlungen als Gegenleistung zumindest für Waren, Werte oder Dienstleistungen, wobei das Verfahren aufweist:

Bereitstellen einer Mehrzahl von elektronischen Systemelementen (20, 60, 70, 80), wobei jedes einzelne der Elemente eine Geldbörse hat, die einen Guthabenbetrag für Forderungswerte speichert, die für das individuelle Systemelement gewahrt bzw. garantiert werden, und, für zumindest eine der Geldbörsen,

Unterzeichnen und Authentisieren einer Transaktionsaufzeichnung für jede Transaktion, bei welcher die Geldbörse etwas von dem Guthaben für Forderungswerte verwendet, das gewahrt worden ist, und Verhindern, das die Geldbörse das Guthaben für Forderungswerte überschreitet, welches gewahrt worden ist, wobei zumindest eine Geldbörse aus der Mehrzahl von Geldbörsen einen Guthabenbetrag für Forderungswerte gewahrt, die gegenüber zumindest einer zweiten Geldbörse aus der Mehrzahl von Geldbörsen gewahrt werden, und zwar nur in Reaktion auf die Aktivierung durch zumindest einen Systemleiter und in der Weise, das Information, die sich auf die Aktivierung bezieht, einschließlich der Identität des zumindest einen Systemleiters, aufgezeichnet wird.

11. Verfahren nach Anspruch 10, wobei jede der Geldborsen ein SAM (Sicherheitsanwendungsmodul) (1310) aufweist.
12. Verfahren nach Anspruch 10 oder 11, wobei jede Geldborsenüberwachungseinrichtung durch einen öffentlichen Schlüssel geschützt ist.
13. Verfahren nach Anspruch 10, 11 oder 12, wobei jede Geldborsensteuereinheit durch einen öffentlichen Schlüssel geschützt ist.
14. Verfahren nach einem der Ansprüche 10 bis 13, wobei die Transaktionsaufzeichnung mit einem Zeitstempel versehen wird und wobei der Schritt des Verhinderns verhindert, dass die Geldbörse ein Guthaben für einen Forderungswert, welches gewahrt wurde, über mehr als eine vorbestimmte Zeitdauer überschreitet.
15. Verfahren nach einem der Ansprüche 10 bis 14, wobei die Geldborsensteuereinheit off-line arbeitet.
16. Verfahren nach einem der Ansprüche 10 bis 15, wobei der zumindest eine Systemleiter aus einer vorbestimmten Mehrzahl von Systemleitern besteht.
17. Verfahren nach einem der vorstehenden Ansprüche, wobei der Forderungswert eine Bargeldforderung ist.
18. Verfahren nach einem der vorstehenden Ansprüche, wobei der Forderungswert eine Buchforderung ist.

CLAIMS EP 944879 B1

1. Système de recouvrement sur d'un paiement en échange d'au moins un item parmi des marchandises, des valeurs et des services, le système comprenant :
une multiplicité d'éléments de système électronique (20, 60, 70, 80) dans laquelle chaque item individuel parmi les éléments possède un porte-monnaie stockant une quantité de crédit pour une valeur à recevoir accordée à l'élément de système individuel, chaque porte-monnaie comprenant :
un contrôleur de porte-monnaie servant à signer et à authentifier un enregistrement de transaction pour chaque transaction dans laquelle le porte-monnaie utilise une partie du crédit pour une valeur à recevoir qui lui a été accordé ; et
une unité de commande de porte-monnaie servant à éviter audit porte-monnaie de dépasser le crédit pour une valeur à recevoir qui lui a été accordé, dans lequel au moins un premier porte-monnaie parmi ladite multiplicité de porte-monnaie comprend une unité d'accord de crédit servant à accorder une quantité de crédit pour une valeur à recevoir accordée à au moins un second porte-monnaie parmi ladite multiplicité de porte-monnaie uniquement en réponse à une activation par au moins un directeur de système et servant à enregistrer une information concernant l'activation comprenant l'identité dudit au moins un directeur de système.
2. Système selon la revendication 1, dans lequel chacun desdits porte-monnaie comprend un SAM (module d'application de sécurité) (1310).
3. Système selon l'une quelconque des revendications précédentes, dans lequel chaque contrôleur de porte-monnaie est protégé par clé publique.
4. Système selon l'une quelconque des revendications précédentes, dans lequel chaque unité de commande de porte-monnaie est protégé par clé publique.
5. Système selon l'une quelconque des revendications précédentes, dans lequel le contrôleur de porte-monnaie sert à signer et à authentifier l'enregistrement de transaction en tant qu'enregistrement de

transaction date et dans lequel l'unité de commande de porte-monnaie sert à éviter audit porte-monnaie de prolonger le crédit pour une valeur à recevoir qui lui a été accordé au-delà d'une période de temps pré-déterminée.

6. Système selon l'une quelconque des revendications précédentes, dans lequel ladite unité de commande de porte-monnaie est opérationnelle hors ligne.
7. Système selon l'une quelconque des revendications précédentes, dans lequel ledit au moins un directeur de système est une pluralité pré-déterminée de directeurs de système.
8. Système selon l'une quelconque des revendications précédentes, dans lequel ladite valeur à recevoir comprend des espèces à recevoir.
9. Système selon l'une quelconque des revendications précédentes, dans lequel ladite valeur à recevoir comprend des créances à recevoir.
10. Procède de recouvrement sur d'un paiement en échange d'au moins un item parmi des marchandises, des valeurs et des services, le procède comprenant les étapes consistant à :
fournir une multiplicité d'éléments de système électronique (20, 60, 70, 80) dans laquelle chaque item individuel parmi les éléments possède un porte-monnaie stockant une quantité de crédit pour une valeur à recevoir accordée à l'élément de système individuel ; et, pour au moins l'un des porte-monnaie,
signer et authentifier un enregistrement de transaction pour chaque transaction dans laquelle le porte-monnaie utilise une partie du crédit pour une valeur à recevoir qui lui a été accordé ; et
éviter audit porte-monnaie de dépasser le crédit pour une valeur à recevoir qui lui a été accordé, dans lequel au moins un premier porte-monnaie parmi ladite multiplicité de porte-monnaie accorde une quantité de crédit pour une valeur à recevoir accordée à au moins un second porte-monnaie parmi ladite multiplicité de porte-monnaie uniquement en réponse à une activation par au moins un directeur de système et sert à enregistrer une information concernant l'activation comprenant l'identité dudit au moins un directeur de système.
11. Procède selon la revendication 10, dans lequel chacun desdits porte-monnaie comprend un SAM (module d'application de sécurité) (1310).
12. Procède selon la revendication 10 ou 11, dans lequel chaque contrôleur de porte-monnaie est protégé par clé publique.
13. Procède selon la revendication 10, 11 ou 12, dans lequel chaque unité de commande de porte-monnaie est protégé par clé publique.
14. Procède selon l'une quelconque des revendications 10 à 13, dans lequel l'enregistrement de transaction est daté et dans lequel l'étape de prévention évite audit porte-monnaie de prolonger le crédit pour une valeur à recevoir qui lui a été accordé au-delà d'une période de temps pré-déterminée.
15. Procède selon l'une quelconque des revendications 10 à 14, dans lequel ladite unité de commande de porte-monnaie est opérationnelle hors ligne.
16. Procède selon l'une quelconque des revendications 10 à 15, dans lequel ledit au moins un directeur de système est une pluralité pré-déterminée de directeurs de système.
17. Procède selon l'une quelconque des revendications précédentes, dans lequel ladite valeur à recevoir comprend des espèces à recevoir.
18. Procède selon l'une quelconque des revendications précédentes, dans lequel ladite valeur à recevoir comprend des créances à recevoir.

...SPECIFICATION FCP<DD>File Control Parameters- A template used by the EMV

to control file parameters, can be part of the FCI.

Firewall - a virtual barricade to prevent illicit access to computer
? t s4/7,k/4

4/7,K/4 (Item 1 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00477998 **Image available**
DAY AND NIGHT GLOBAL SOLAR LIGHTING GRID
RESEAU MONDIAL D'ECLAIRAGE JOUR & NUIT

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English Abstract

A Day and Night lighting network encompassing the entire earth and the utilization of Sunlight energy incorporating an unmanned global optic fiber grid and/or system connected to numerous solar collecting stations and automatically transmitting the said sunlight energy continuously 24 hours everyday from several locations in the Day Time Zone on Earth to all the regions in the Night Time Zone on Earth thereby lighting-up the night via optic fiber.

French Abstract

La presente invention concerne, d'une part un reseau d'eclairage jour & nuit englobant toute la Terre, et d'autre part l'utilisation de l'energie du Soleil. A cet effet, on a recours a un reseau et/ou un systeme mondial automatique en fibres optiques connecte a de nombreuses stations solaires collectrices. Ces stations transmettent automatiquement en continu l'energie lumineuse du Soleil, quotidiennement, 24h / 24h. L'energie lumineuse, prise dans les regions de l'hemisphere terrestre dans le jour, est envoyee a toutes les regions de l'hemisphere terrestre dans la nuit, donnant ainsi de la lumiere la nuit via une fibre optique.

Claim

Fig. 1 shows how the said Solar Collecting Station/s is connected to the said Day and Night Global Solar Lighting Grid on Earth which re-transmit the said collected Sunlight energy to a city at a remote location on Earth which is in darkness or at night. Fig.2 to 7 are Satellite Views of Earth with Day and Night Time Zones clearly demarcated. Fig. 8 is the Side View of a cluster of Solar Collecting Stations. Fig. 9 is the Top View of a cluster of Solar Collecting Stations. Fig. 10 is a proposed Solar Farm/s on land and underwater connected to the said invention Day

and Night Global Solar Lighting Grid. Fig. 1 is a proposed underwater city connected to the said invention Day and Night Global Solar Lighting Grid.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In detail now and referring to the drawings, FIGS. 1 shows how Sunlight energy is collected and transmitted by Solar Collecting Station from a location in the Day

Time Zone from one side on Earth. The said Solar Collecting Station is connected to the said Day and Night Global Solar Lighting Grid which receives this said Sunlight energy and re-transmit the said Sunlight energy to a remote location which is at the Night Time Zone on Earth.

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Sites for Solar Collecting Stations

Fig. 2 to Fig. 7 are actual Satellite pictures of the Earth showing real time "moving" Day and Night Time Zones of the entire Earth at Six (6) different time (UTC) during the Earth's Rotation. This said clear demarcation of Day and Night Time Zones at various locations on Earth offers a complete picture on all the possibilities, limitations and suitability of a selected location on Earth for the possible siting of one or more Solar Collecting Station/s. These Satellite pictures show that every country situated in a time zone has a "fixed" or limited amount of Daylight hours. It is the amount of available Daylight hours that can be easily and readily collected from a said location that determines the site being selected as a suitable Solar Collecting site. Depending on the said country's location and topography, Solar Collecting Stations can be build on such proposed or selected locations within the said country to harness and collect Sunlight energy. The collected Sunlight energy can be utilize for own local consumption and onward transmission to another remote location which is in darkness and requires these said Sunlight for their lighting needs via the said invention of the Day and Night Global Solar Lighting Grid.

Day and Night Global Solar Lighting Grid

At Time: 22:51 LITC in Fig. 5 shows that a cluster of Solar Collecting Stations located in Australia that has just began collecting and harnessing Sunlight energy. The said collected Sunlight energy will be transmitted via optic fiber to a network of optic fiber called a Day and Night Global Solar Lighting Grid. Just like an electric power grid, this said Day and Night Global Solar Lighting Grid is continuously transmitting Sunlight energy in a westward direction via optic fiber.

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Upon receiving the said Sunlight energy from the Solar Collecting Stations in Australia, this said Day and Night Global Solar Lighting Grid transmit the said Sunlight energy to several locations which at that moment in time are in darkness such as Europe and the Middle East. A country in Europe such as England has its own local Solar Lighting Grid built within its borders. This said local Solar Lighting Grid in England being connected to the said Day and Night Global Solar Lighting Grid receives the said Sunlight energy from the said Day and Night Global Solar Lighting Grid. Through the said Day and Night Global Solar Lighting Grid, all consumers in England could receive the said Sunlight energy that was earlier transmitted from those Solar Collecting Stations in Australia. All through the Daylight hours, the Solar Collecting Stations in Australia will be collecting and transmitting the said Sunlight to England via the said Day and Night Global Solar Lighting Grid as illustrated in Fig 5 and Fig 6. Simultaneously, as the Earth continues its rotation as illustrated in Fig 5 and in Fig. 6, another cluster of Solar Collecting Stations located on the plateaus of the Himalayan

Mountains also began operation i.e. the collecting and harnessing the Sunlight energy. The said Solar Collecting Stations from the Himalayan mountains will at the said time commence supplying the said Sunlight energy to the said Day and Night Global Solar Lighting Grid for onward transmission to remote locations which are now crossing over from evening to night. These said places that are in darkness are countries found in Africa, North and South America. Note that the Time Zone difference between Central Australia and the Himalayan regions is "about 2 to 4 hours distance apart". Whilst the said Solar Collecting Stations from Australia was in the "still-inoperation" mode, the coming on-line by the cluster of Solar Collecting Stations from the Himalayan mountains will provide the required continuity so vital to the

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continuous and uninterrupted transmission of Sunlight energy to the said Day and Night Global Solar Lighting Grid. Just hours before the said Solar Collecting Stations in Australia cease Sunlight energy collection as illustrated in Fig. 7, another cluster of Solar Collecting Stations located in Saudi Arabia will join-into the network and comes on-line by commencing the collection and harnessing of Sunlight energy and supplying the said collected Sunlight energy to the said Day and Night Global Solar Lighting Grid. Note that there is a "no break" of Sunlight energy transmission to-and-from the said Day and Night Global Solar Lighting Grid, which continuously receives Sunlight energy from all Daylight regions on Earth. This said "no break" of Sunlight energy transmission is the result of strategic site planning and locating the Solar Collecting Stations at the various Time Zones so that Sunlight energy collection times of one location will extend over the transmission time of another remote location. This overlapping of Sunlight energy transmission times between both locations remote from each other is to establish a state of consecutive continuity condition incorporated into the systematic operation of the said Day and Night Global Solar Lighting Grid.

Implementing a buffer of ample Daylight hours for Sunlight energy collection, transmission and the overlapping of transmission times is a vital safeguard of ensuring that the said Day and Night Global Solar Lighting Grid will continuously transmits Sunlight. Therefore determining the precise distance of each location from one another must be carefully calculated taking into considerations together with other numerous consequential factors such as weather, topography, population density, economic and industrial activity, availability of the number of Daylight hours, etc.

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to 8 Hours-Distant Location

Note that all the said Day and Night regions illustrated in Fig. 2 to Fig. 7 are not permanent or "fixed" due to the ever-changing position of the Sun at various

times of the year such as the Summer and Winter Equinox. '

No one location gets a "fixed" amount of Daylight hours in a given year. Regardless of the availability of collecting Sunlight energy during Daylight hours, every Solar Receiving countries will receive a full measure of transmitted Sunlight energy from the said Day and Night Global Solar Lighting Grid. Thus all Solar Receiving countries are dependent on the transmission of Sunlight energy from locations in the East which is only 4 to 8 hours ahead of the said consumer countries.

Time Zones

Every country on Earth falls within a certain Time Zone. The function of the Satellite pictures illustrated in Fig. 2 to Fig. 7 display the complete overview of the Day and Night regions of the World which set the

basis for the said Day and Night Global Solar Lighting Grid to determine the exact amount and the location to transmit the said Sunlight energy. However when all the Time Zones of the World are taken into consideration, there is a noticeably huge disparity of Solar Collecting countries as compared to the number of Solar Receiving countries situated inside the various Time Zones of the World. Before the said Day and Night Global Solar Lighting Grid could be plan and build, cross border co-operation and support is necessary. The building of the said Day and Night Global Solar Lighting Grid must be regarded as a common National project on the premise that the said project is crucial not only to other countries but also to themselves. Even if the said country is not participating in the said Day and Night Global Solar Lighting Grid, a simple and basic optic fiber infrastructure is still required to be set in place.

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The complete laying and connecting all the optic fibers together forming a network is mandatory for the effectiveness of this invention of the Day and Night Global Lighting Grid

Laying and connecting a whole network of optic fibers through such densely populated regions will need careful planning and lengthy seasonal on-site testing and trials. Multiple secondary re-routing of optic fiber will be required for these Solar optic fiber Sunlight energy transmission routes. Multiple clusters of secondary Solar Collecting Stations must be sited at these said 4 to 8 hours-distant-locations.

Solar Collecting Stations

Solar Collecting Stations are tall elongated skyscraper structure shaped like an open flower with the various optical lens embedded on the top surface. Sunlight is collected and transmitted within said core of optic fiber for onward transmission as mentioned herein, see US Patent No: 4246477 and US Patent No:5467564. At all times during Daylight hours, most of the optical lens are facing the Sun and collecting the Sunlight for onward transmission via connecting Optic Fibers. See Fig. 1 and Fig. 8. Ideal sites for building these said Solar Collecting Stations are areas with Sunshine all year round and with little or no clouds, haze, dust storms, etc. These suitable locations with vast land and/or shallow sea area could site a whole cluster of Solar Collecting Stations to take full advantage of having a full Day for Sunlight Collection. In regions with cloudy skies, then Solar Collecting Stations should be built tall enough that it stands above most of the dense low passing cloud, haze or even dust cover so as to receive the full beams of Sunlight at all times during Daylight. **Regular** cleaning ensures that the optical lens' surfaces are clean and dirt-anddust free so as to permits the full 1 00% Sunlight collecting efficiency.

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The problem could be rectified with the installation of remote-control or automatic pre-timed wiper with water sprout just like present day car wind screen wiper during rainy weather and /or air blowers installed with jets of water spraying and washing away the elements from the lens surfaces. Unobstructed rooftop of multi-storey house, tall building or any tall structure could be design and build as mini Solar Collecting Stations. These mini Solar Collection Stations could be connected to the Day and Night Global Solar Lighting Grid for onward transmission of collected Sunlight energy. Thus not only they collect Sunlight energy for their own consumption but also provide whatever small area for the collection of Sunlight. A person skilled in the art of Optic Fiber Lighting installation will be able to design and plan the construction,

installation and the laying of an elaborate Solar Lighting Grid for a country's total and complete lighting requirements and the retransmission of Sunlight via Optic Fiber to another country. These Optic Fiber Lighting experts will know how and where to place and install the optical lens and/or accessories at certain pre-determined points on the Global Solar Lighting Grid to overcome and compensate attenuation for light transmitted via optic fiber over such great distances. See US Patent No: 5140598 and US

Patent No: 5553177

Upon reaching its intended destination, the Sunlight energy is transmitted to connecting local Solar Lighting Grid and utilizes by consumers. See US Patent

No: 4389085; US Patent No: 5408795; US Patent No: 4329021; A chain of Optic Fiber linking country-to-country will eventually connect all the

countries in the various Time Zones around the Globe together forming a network, thus, one complete Day and Night Global Solar Lighting Grid. Thereafter, every country connected to the said Day and Night Global Solar Lighting Grid could receive the said Sunlight energy, day or night irrespective of the Time Zone they are located in.

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Countries in the tropics and near the Equator are more suitable to the transmission of Sunlight because of abundant Sunshine all the year round. Sites selected for Solar Collecting Station of the said Global Solar Lighting Grid must have the following criteria:

- Flat open and clear spaces
- Atoll
- Shallow waters
- Deserted sparsely low forested islands
- Hill-tops
- Tall unobstructed buildings and structures
- Flat open and clear Desert lands

Countries in the temperate regions with 4 Seasons can only be Solar Collecting countries for 4-11 months of the year with the remaining period becoming Solar Receiving countries. A person skilled in the art of laying optic fibers will design and install the entire network for the transmission of Sunlight energy through these optic fibers of the Day and Night Global Solar Lighting Grid. A set of universal and uniform Rules and Regulations will be drawn up for the design, building, installation and connection of all transmitting and receiving optic fibers to and from this said Day and Night Global Solar Lighting Grid. During the design, building and construction of the local Solar Lighting Grid and its connection to the Global Solar Lighting Grid, it is the duty and responsibility of cross border Regulatory authorities and officials to ensure compliance and enforce the adherence of Solar Lighting Grid Design and Building Guidelines. Globally, every country is dependent on all countries adhering to these Solar Lighting Grid Building Guidelines in order that when nightfall, they will definitely receive 100% Sunlight transmitted from the said Day and Night Global Solar Lighting Grid.

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LIMITATIONS OF CERTAIN COUNTRIES

Certain countries may not function efficiently as Solar Collecting countries but remain as Solar Receiving countries because they are situated in regions whereby they do not have enough Sunshine all the year round or sufficient Sunshine hours for the collection and harnessing by the Solar Collecting Stations. Certain countries may not function fully as Solar Collecting countries because of the frequency of natural

calamities such as tornadoes, thunderstorms, monsoons, floodprone areas, snow-storms, hazy, cloud covered, earthquakes, active volcanoes, etc. Any hazardous mishap, natural, accidental or incidental occurrences that will affect and damage, dis-connect or dislocate the optic fiber connection or cause the Day and Night Global Solar Lighting Grid to be disintegrated must be avoided.

SUITABLE COUNTRIES

Most countries located in the Tropical regions on Earth, especially those with large desert lands, shallow lakes, shallow seas, flat mountain top, etc. are most suitable. The only setback are the occasional sand-storms, snowstorm, dense clouds which reduces the efficiency of the Solar Collecting Station to collect sufficient Sunlight energy for transmission. Due to the inhospitable living conditions, it is easier and faster to install and maintain the said Solar Collecting Stations in these said locations because of minimal human activity. The almost flat topographical terrain of the desert are ideal sites for the installation of Solar Collecting Stations. Unlikelihood of trees or forest springing up to "shade" the Sunlight thereby blocking and reducing the efficiency of the Optic Fibers from "collecting the full 100% Sunlight". Such locations **offer** the Solar Collecting Station the full 6-8 hour day of un-interrupt collection of Sunlight energy for transmission thenceforth.

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Important Ground Rule:

Due to the Earth rotation, it is better and more efficient to lay all optic fiber from East to West and the Sunlight must be transmitted one-way i.e. in a East-West direction within said core of Optic Fiber of the said Global Solar Lighting Grid. Solar Lighting Grid Design and Building Guidelines and Standards Rules and Regulations should include some of the following:

- Optic Fiber Specifications,
- Description,
- Dimensions,
- Performance,
- Usage/ Load, Function and Parameters,
- Do's and Don'ts,
- Warranty Period,
- Reliability,
- Recommended **Expiry** Date of Optic Fiber
- Efficiency,
- Rate of Light Transmission,
- Optical Output,
- Extinction Ratio,
- Methods and Standard of Optic Fiber Connection, Termination, Amplification,

Routing, Interface, Transfer, Controls, Recovery, Overload,

- Set up, Operation, Maintenance and Repairs Manuals

- Testing Methods and Standards

- Measurement Terms, Methods and Standards

Optic Fiber laying and routing Guidelines

As this Day and Night Global Solar Lighting Grid involves only a one-time construction, great care, consideration and sacrifice must be made by all parties and/or governments for the long-term benefit of present and future generations.

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Government bodies must be generous and compromising towards the allocation of land area and spaces and /or sea area for the building and

laying of Optic Fibers of the Day and Night Global Solar Lighting Grid running through the territory of any and/or all country/s. These said land parcel ear-marked for the development of the said Day and Night Global Solar Lighting Grid must remain permanent. These said land parcel cannot be compromise into allowing any other future developments and/or constructions of building and/or structures on or in the vicinity of the allotted said land that will ultimately affect the efficient transmission of Sunlight energy by the optic fiber running therethrough. Optic fiber of the said Day and Night Global Solar Lighting Grid can be laid above ground, at ground level, underground or even underwater. Guidelines will include the stringent granting of permits for construction work of any sort to be carry out in the vicinity of the said and laid Day and Night Global Solar Lighting Grid. Efficiency of the said optic fiber to transmit Sunlight will be affected and could even damage or cause the optic fiber to deteriorate, breaks or disconnect. Sites selected must be easily accessible for **regular** monitoring, inspection and maintenance. It is apparent that this said invention of Day and Night Global Solar Lighting Grid has immense long term benefits and possibilities to present and future generations, thus an international custodian comprising representatives from all nations is required. An International Committee may either be appointed, elected or nominated with powers to administer jurisdiction over all matters pertaining to the said Day and Night Global Solar Lighting Grid to ensure and safe-guard its continued operation in the long term. Guideline of any Optic Fiber Connections and Operations to the Day and Night Global Solar Lighting Grid must include the following:

there must be an internationally agreed uniform optic fiber connection guidelines with clearly defined technical drawings and charts.

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connection, splitting and diverting must be based on agreed method/s of Testing

and Evaluation for its operational effectiveness before installation

any alteration, amendments to optic fiber connections must be agreed/approved by the International Committee and/or Custodian/s of the said Day and Night Global Solar Lighting Grid before actual work is to be carry out. Countries that maybe affected must be forewarn of such work being carry out at the said remote location so as to prepare them for any impending disruption of Sunlight transmitted to said countries. All connections in the Day and Night Global Solar Lighting Grid must have at least one Secondary Optic Fiber Sunlight Transmission Re-Routing By-pass incorporated in the said Day and Night Global Solar Lighting Grid. This is a very important safeguard against Optic Fiber "disconnection" as a result of accidental breakage and/or natural calamities. These fail-safe measures ensure a continuous and uninterrupted transmission of Sunlight energy in the said Day and Night Global Solar Lighting Grid from point-to-point and to all points on Earth.

Maintenance Schedule

Optical lenses of said Solar Collecting Station/s need daily or even hourly cleaning to ensure the full harnessing of Sunlight energy for transmission via optic fiber. Dusts and other elements will cloud and impede the rays of Sunlight from being transmitted. Mechanical means such as air blowers, windscreens wipers or any cleaning devices maybe required to ensure a continuous clean, dirt-and-dust free lens.

Optic Fiber Monitoring Schedule

Regular and schedule monitoring routine must be drawn up to determine the condition of the main optic fiber and monitor its ability to transmit 100% of Sunlight from end-to-end and whether replacement of

the optic fiber is necessary or not. The invention of the said Day and Night Global Solar Lighting Grid is not to be limited to this basic design. However the main intention of this invention is to bring SUBSTITUTE SHEET (RULE 26)

Sunlight energy to all Night Time Zone locations on Earth via whatever medium which is capable of transmitting Sunlight energy.

While a few embodiments of the present invention have been described and illustrated, it is to be understood that many **changes**, modifications and variations could be made to the said Day and Night Global Solar Lighting Grid without departing from the scope or spirit of the invention i.e. free Sunlight energy - Day and Night.

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CLAIMS

1 - A Day and Night Global Solar Lighting Grid comprising:
a global network of interconnecting optic fibers collecting, transmitting and receiving sunlight energy therefrom comprising:(i) a network of optic fibers connected to multiple Solar Collecting Stations
which collect and transmit said Sunlight energy from multiple locations with daylight to several remote locations which is then in darkness,
(ii) The said optic fibers must be "Sunlight energy transmittable" over entire said distance from point-to-point. (iii) the optic fiber claddings must be layer substantially surrounding said optic fiber to confine the sunlight energy being transmitted through the core of said optic fiber

2 Sunlight energy must be transmitted from a region in the Day Time Zone to a region in the Night Time Zone.

3 All said Sunlight energy transmission must be transmitted from point-to-point on Earth.

4 Presently, Optic Fiber is widely recommended as the medium of Sunlight energy transmission in the said invention Day and Night Global Solar Lighting Grid. However it must be noted that at a later date and as technology advances, improved alternative medium/s and/or method/s of transmitting Sunlight energy efficiently from point-to-point maybe utilize in the said invention.

5 The collection and harnessing of said Sunlight energy is mainly utilize for all lighting applications and for conversion into electrical energy.

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. For the said Day and Night Global Solar Lighting Grid of Optic Fibers to transmit and supply the natural Sunlight energy from country/s in the Day Time Zones to country/s in the Night Time Zones, the following criteria is necessary:i. Solar Collecting Station/s must be build at several remote locations scattered all over the Earth;
ii. the said Solar Collecting Station/s are connected to the said invention Day and Night Global Solar Lighting Grid via optic fiber or any light transmittable medium and/or method;
iii. the said Solar Collecting Station/s transmit the collected said Sunlight energy to the said invention Day and Night Global Solar Lighting Grid;
iv. a local Solar Lighting Grid must be built in place within the boundaries of a country i.e. just like the network of electric power cables found in an electric power grid of a country supplying electricity to each and every house, offices, buildings, etc., a local Solar Lighting

Grid consisting of a network of optic fiber laid and connected to all homes, offices, buildings, etc. and transmitting Sunlight to the said locations;

v. local means within the territorial boundaries of the said country; vi. the said local Solar Lighting Grid must be inter-connected at all points and transmitting said Sunlight energy to the receiving end of the connecting optic fiber i.e. to the consumer which will utilize the said transmitted Sunlight energy for lighting application/s and/or converted into electrical energy for various other applications-,

vii. connected means the joining together of all optic fiber cables; viii. Optic fiber or optic fiber cable/s mentioned herein refers to any clear transparent medium/s, which conducts Sunlight, and transmits optical energy. It can either be made of glass, plastic, etc. The sole function of said optic fiber is to transmit Sunlight. ix. operational ready means the optic fiber cables are laid in place and ready at all times to transmit Sunlight from end-to-end and/or to a plurality of locations in said building where distribution of said Sunlight is to occur i.e. it is

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continuously operational 24 hours everyday and/or in open spaces, above land surfaces, on land, below land and/or at sea level or underwater;

x. Sunlight energy or Solar energy refers to the Sun rays or beams of light from

the one source i.e. the Sun,

xi. Solar collecting/collection and harnessing mentioned herein refers to the gathering of Sunlight energy by one or more and/or the combination of one or more optical lens and/or devices and/or instrument/s and/or accessories. Such said optical accessories, lens, devices, instruments must be sunlight transmittable and/or perform the work of gathering and transferring sunlight from end-to-end and/or from point-to-point. xii. Lighting/light-up mentioned herein refers to the application/s of Sunlight illumination to any interior and/or exterior location/s and /or space/s. xiii. Daylight mentioned herein refers to a period of time where the Sun is present and beaming sunrays and sunshine occurs for the entire duration of the said period of time.

7 The said Solar Collecting Station of the said invention Day and Night Global Solar Lighting Grid is a structure **configured** for the collection and harnessing of Sunlight energy and the transmission of said Sunlight energy via Optic Fiber or any light transmittable medium to the said invention Day and Night Global Solar Lighting Grid which re-transmit said Sunlight energy to multiple remote locations in the Night Time Zones on Earth;

8 The said invention Day and Night Global Solar Lighting Grid and the said local Solar Lighting Grid in a country is an elaborate network or system of optic fiber cables all laid out, connected and operational ready to transmit said Sunlight energy to any remote and/or local locations at all times;

9 The said Solar Collecting Station of the said invention Day and Night Global Solar Lighting Grid can be located on top of tall unobstructed structures and

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buildings and/or any one and/or more location/s where Sunlight energy can be freely harness;

10. The said Single or whole cluster of Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid must be sited in a plurality of locations; 11. The said Single or whole clusters of Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid can be sited on any locations such as open land area, shallow sea, mountain tops, plateaus, etc.

12 The said single or whole clusters of Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid must be sited in a manner that are spread out all over the entire Sunlight Harnessing and Collecting area so as to fully utilize all available Daylight/Sunlight hours for the collection and harnessing of said Sunlight energy;

13. The said single or whole clusters of Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid must be sited on location/s that could provide the maximum period of time for the collection and harnessing Sunlight energy ;

14 The said single or whole clusters of Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid must be sited on location/s which could provide suitable conditions for the collection and harnessing of Sunlight energy and they are as follows: complete / comprehensive and total collection and harnessing of Sunlight energy during Daylight/Sunlight hours
 effective collection and harnessing of Sunlight energy during Daylight/Sunlight hours;
 uninterrupted collection and harnessing Sunlight energy during Daylight/Sunlight hours;
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stable and reliable "sunny" weather forecast all year round or most of the time.

15 Solar Collecting country/s refers to country/s which has one and/or multiple Solar Collecting Station/s located within the boundaries of the said country/s;

16 The said Solar Collecting country/s having such Solar Collecting Stations located within the said country/s could collect and harness the said Sunlight energy and supplying the said Sunlight energy to the said Day and Night Global Solar Lighting Grid;

17 Solar Receiving country/s means country/s receiving the transmitted Sunlight energy from the said Day and Night Global Solar Lighting Grid via optic fiber or any light transmittable medium;

18 The said Solar Collecting Station also transmit Sunlight energy to Solar receivers locally i.e. within the said country for own local consumption such interior illumination of buildings and/or other applications;

19 Sunlight energy maybe utilize for conversion into electricity for application in the various industries such as transportation, communication, telecommunications and every operation that need

electrical or solar power etc.

20 This said invention Day and Night Global Solar Lighting Grid once installed and commissioned is unmanned indefinitely but remains operational at all times. 21. The said Optic Fiber Grid of the Day and Night Global Solar Lighting Grid must permit the uninterrupted and continuous transmission and receiving of Sunlight energy within core of the said Optic Fiber;

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. The said Day and Night Global Solar Lighting Grid of Optic Fiber as defined in claim 1, must be interconnected and link with all participating countries all over the world;

i. the said participating countries must be located in all the different Time Zones

on Earth and;

ii. all participation countries' local Solar Lighting Grid must be interconnected to one another i.e. the local Solar Lighting Grid of the said country must be able

to collect Sunlight energy and transmit the said Sunlight energy and to receive the transmitted Sunlight when the said participating country turn from

Day to Night i.e. when the countries in the Day Time Zones becomes the Night Time Zones as a result of the Earth's rotation and the same said countries in turn becomes the "Solar Receiving" countries and vice versa when the said countries in the Night Time Zones turn to the Day Time Zones,

they become the "Solar Transmitting" countries;

23 Certain periods to note are the positions of the Sun at the Summer and Winter Equinox.

This Solar phenomenon of Long Days and Short Nights and vice versa is seasonal. Daylight collecting hour's changes from location-to-location with this said Solar

phenomenon thereby affecting Sunlight collection times of the said Solar Collecting Stations of the said invention Day and Night Global Solar Lighting Grid.

24 Occasionally, the Solar Collecting Station/s' Sunlight energy collection effectiveness maybe hampered for a short period of time due to Solar Eclipse. This said Solar phenomenon will affect some locations to certain variable degree where the said Solar Collecting Station/s are sited.

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Patent and Priority Information (Country, Number, Date):

Patent: ...19990225

Fulltext Availability:

Claims

Publication Year: 1999

Claim

... in Fig. 2 to Fig. 7 are not permanent or "fixed" due to the ever-changing position of the Sun at various times of the year such as the Summer and...cover so as to receive the full beams of Sunlight at all times during Daylight. **Regular** cleaning ensures that the optical lens' surfaces are clean and

dirt-anddust free so as...the efficiency of the Optic Fibers from "collecting the full 1 00% Sunlight". Such locations **offer** the Solar Collecting Station the full 6-8 hour day of un-interrupt collection of...

...Performance,

- Usage7 Load, Function and Parameters,
- Do's and Don'ts,
- Warranty Period,
- Reliability,
- Recommended **Expiry** Date of Optic Fiber
- Efficiency,
- Rate of Light Transmission,
- Optical Output,
- Extinction Ratio,
- Methods and...the optic fiber to deteriorate, breaks or disconnect. Sites selected must be easily accessible for **regular** monitoring, inspection and maintenance. It is apparent that this said invention of Day and Night...

...required to ensure a continuous clean, dirt-and-dust free lens.

Optic Fiber Monitoring Schedule

Regular and schedule monitoring routine must be drawn up to determine the condition of the main...the present invention have been described and

illustrated, it is to be understood that many **changes**, modifications and variations could be made to the said Day and Night Global Solar Lighting...Station of the said invention Day and Night Global Solar Lighting Grid is a structure **configured** for the collection and harnessing of Sunlight energy and the transmission of said Sunlight energy...

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Set	Items	Description
S1	180	(PRICE OR OFFER) (S) (EXPIR?) (S) (CHANG?) (S) (REGULAR)
S2	145	RD S1 (unique items)
S3	37	S2 AND PY<2000
S4	4	S3 AND (CUSTOMIZED OR CUSTOM OR CONFIGUR?)
		?